Fall Semester 2019

Dear Potential Employer:

Thank you for your interest in our Biosystems Engineering graduates. This booklet includes the resumes of our soon to be 2019/20 graduates as well as the resumes of other students (e.g., juniors, sophomores, freshmen, graduate students, and recent graduates) looking for summer internships, co-op or part-time work experiences or full-time.

In case you are not familiar with our program, the Bachelor of Science in Biosystems Engineering at Michigan State University is an ABET-accredited engineering program, emphasizing the integration of biology and engineering principles in addressing critical societal needs. All of our students complete a common core of engineering courses, at least five courses in biological sciences, and a group of courses allowing them to specialize in a particular application area. We are including a copy of the curriculum at the front of this booklet, for your information.

As you will see from the enclosed resumes, our students’ interests span a wide domain, ranging from food processing to biomedical systems to sustainable ecosystems to bioenergy and bioproduct development. We encourage you to contact any of them directly if you have suitable opportunities. The most current version of this resume book can be requested at www.egr.msu.edu/bae/resumebook (click on Resume Book). If you have more general questions or comments about our resume book or placement of our students, please contact our Industry Liaison, Luke Reese, PhD (517-353-3258; reesel@msu.edu). We are proud of our students, in terms of both their accomplishments and aspirations.

If you have questions about the Biosystems Engineering degree program, in terms of program objectives, coursework, etc., feel free to contact me. We are always happy to talk with potential employers about our degree program and our students.

Sincerely,

Bradley P. Marks, PhD, PE
Professor
Undergraduate Program Coordinator
Biosystems Engineering

1. University Requirements: (23)
   Writing, Rhetoric and American Cultures (WRA) 4
   Integrative Studies in Humanities (IAH) 8
   Integrative Studies in Social Sciences (ISS) 8
   Bioscience: BS 161 Cell and Molecular Biology 3

2. College Requirements: (30)
   CEM 141 General Chemistry 4
   EGR 100 Introduction to Engineering Design 2
   EGR 102 Introduction to Engineering Modeling 2
   MTH 132 Calculus I 3
   MTH 133 Calculus II 4
   MTH 234 Multivariable Calculus 4
   MTH 235 Differential Equations 3
   PHY 183 Physics for Scientists & Engineers I 4
   PHY 184 Physics for Scientists & Engineers II 4

3. Major Requirements: (63-65)
   a. Complete all of the following courses: (44)
      BE 101 Introduction to Biosystems Engineering 1
      BE 230 Engineering Analysis of Biological Systems 3
      BE 332 Engineering Properties of Biological Materials 3
      BE 334 Biosystems Engineering Laboratory Practice 3
      BE 350 Heat and Mass Transfer in Biosystems 3
      BE 351 Thermodynamics for Biological Engineering 3
      BE 360 Microbial Systems Engineering 3
      BE 385 Engineering Design & Optimization for Biological Sys 3
      BE 485 Biosystems Design Techniques 3
      BE 487 Biosystems Design Project (W) 3
      BS 162 Organismal and Population Biology 3
      CE 221 Statics 3
      CE 274 Graphics for Civil & Environmental Engineers 1
      CE 321 Introduction to Fluid Mechanics 4
      CEM 143 Survey of Organic Chemistry 4
      CEM 161 Chemistry Laboratory I 1

   b. Select one of the following courses: (2)
      BS 171 Cell and Molecular Biology Laboratory 2
      BS 172 Organismal and Population Biology Laboratory 2

   c. Select one of the following courses: (3-4)
      IBI 341 Fundamental Genetics 4
      IBI 355 Ecology 3
      MMG 301 Introductory Microbiology 3
      PLB 301 Introductory Plant Physiology 3
      PSL 250 Introductory Physiology 4

   d. Select one of the following courses: (3-4)
      BLD 450 Eukaryotic Pathogens 3
      CSS 442 Agricultural Ecology 3
      CSS 451 Biotechnology Apps for Breeding & Genetics 3
      FOR 406 Applied Forest Ecology: Silviculture 3
      FSC 440 Food Microbiology 3
      MMG 425 Microbial Ecology 3
      MMG 445 Microbial Biotechnology (W) 3
      PLB 402 Biology of Fungi 4
      PLB 424 Algal Biology 4
      PSL 425 Physiological Biophysics 3

   e. Select four of the following courses: (12)
      BE 444 Biosensors for Medical Diagnostics 3
      BE 449 Human Health Risk Analysis for Eng Controls 3
      BE 456 Electric Power and Control 3
      BE 469 Sustainable Bioenergy Systems 3
      BE 477 Food Engineering: Fluids 3
      BE 478 Food Engineering: Solids 3
      BE 481 Water Resources Sys Analys & Modeling 3
      BE 482 Diffuse-Source Pollution Engineering 3
      CHE 468 Biomass Conversion Engineering 3

Optional Concentrations
The department offers concentrations for students who wish to focus on a specific application area in the discipline. The concentrations are available to, but not required of, any student enrolled in the Bachelor of Science degree program in Biosystems Engineering. Courses completed to satisfy requirement 3. above may also be used to satisfy the requirements of a concentration. The concentration will be noted on the student’s transcript.

Bioenergy and Bioproduct Engineering Concentration
To earn a Bachelor of Science degree in Biosystems Engineering with a bioenergy and bioproduct engineering concentration, students must complete requirements 1., 2., and 3. above and the following:

1. All of the following courses: (9)
   BE 469 Sustainable Bioenergy Systems 3
   CHE 468 Biomass Conversion Engineering 3
   CSS 467 Bioenergy Feedstock Production 3

2. Two of the following courses: (6-8):
   BE 457 Bioenergy Feedstock Systems Analysis 3
   CHE 481 Biochemical Engineering 3
   CHE 882 Advanced Biochemical Engineering 3
   CHE 883 Multidisciplinary Bioprocessing Laboratory 3
   CSS 451 Biotechnology Applications for Plant Breeding & Genetics 3
   FOR 406 Applied Forest Ecology: Silviculture 3
   GLG 471 Applied Geophysics 4
   MC 450 International Environmental Law & Policy 3
   ME 417 Design of Alternative Energy Systems 3
   ME 422 Introduction to Combustion 3
   MMG 445 Microbial Biotechnology (W) 3
   PLB 402 Biology of Fungi 4
   PLB 424 Algal Biology 4
Biomedical Engineering Concentration
To earn a Bachelor of Science degree in Biosystems Engineering with a biomedical engineering concentration, students must complete requirements 1., 2., and 3. above and the following:

1. All of the following courses: (6)
   - BE 444  Biosensors for Medical Diagnostics  3
   - BE 449  Human Health Risk Analysis for Eng Controls  3

2. One of the following courses: (3)
   - BLD 450  Eukaryotic Pathogens  3
   - PSL 425  Physiological Biophysics  3

3. Two of the following: (5-6)
   - BLD 204  Mechanisms of Disease  3
   - BLD 430  Molecular Laboratory Diagnostics  2
   - BLD 434  Clinical Immunology  3
   - BLD 450  Eukaryotic Pathogens  3
   - ECE 445  Biomedical Instrumentation  3
   - ME 494  Biofluid Mechanics and Heat Transfer  3
   - MSE 425  Biomaterials and Biocompatibility  3
   - PLB 400  Introduction to Bioinformatics  3
   - PSL 425  Physiological Biophysics  3

Courses used to fulfill requirement 2. in this concentration may not be used to fulfill this requirement.

Ecosystems Engineering Concentration
To earn a Bachelor of Science degree in Biosystems Engineering with an ecosystems engineering concentration, students must complete requirements 1., 2., and 3. above and the following:

1. All of the following courses: (9)
   - BE 481  Water Resources Systems Analysis and Modeling  3
   - BE 482  Diffuse-Source Pollution Engineering  3
   - MMG 425  Microbial Ecology  3

2. Two of the following courses: (5-6)
   - CE 422  Applied Hydraulics  3
   - CSS 210  Fundamentals of Soil Science  3
   - CSS 330  Soil Chemistry  2
   - CSS 360  Soil Biology  3
   - CSS 442  Agricultural Ecology  3
   - CSS 455  Pollutants in the Soil Environment  3
   - FOR 404  Forest Ecology  3
   - FW 417  Wetland Ecology and Management  3
   - FW 420  Stream Ecology  3
   - FW 443  Restoration Ecology  3

Food Engineering Concentration
To earn a Bachelor of Science degree in Biosystems Engineering with a food engineering concentration, students must complete requirements 1., 2., and 3. above and the following:

All of the following courses: (9)
- BE 477  Food Engineering: Fluids  3
- BE 478  Food Engineering: Solids  3
- FSC 440  Food Microbiology  3

Two of the following courses, one of which must be at the 400-level: (6-7)
- BMB 200  Introduction to Biochemistry  4
- FSC 211  Principles of Food Science  3
- FSC 401  Food Chemistry  3
- FSC 430  Food Processing: Fruits & Vegetables  3
- FSC 431  Food Processing: Cereals  3
- FSC 432  Food Processing: Dairy Foods  3
- FSC 433  Food Processing: Muscle Foods  3

Other Electives (Variable)

Total Credits Required for Degree  128

These requirements are effective for students admitted to the Biosystems Engineering major beginning Fall 2016. The Department of Biosystems and Agricultural Engineering (BAE) constantly reviews program requirements and reserves the right to make changes as necessary. Consequently, each student is strongly encouraged to consult with his/her adviser to obtain assistance in planning an appropriate schedule of courses. Students who have questions about Biosystems Engineering should contact the Biosystems Engineering Advising Office, 103 B Farrall Hall, phone (517) 355-3274. For scheduling academic advising appointments visit: https://www.egr.msu.edu/adcalendar/

Last revised April 2016
# Biosystems Engineering

## Sample Program

### Freshman Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE 101</td>
<td>1</td>
<td>BS 161</td>
<td>3</td>
</tr>
<tr>
<td>CEM 141</td>
<td>4</td>
<td>EGR 102</td>
<td>2</td>
</tr>
<tr>
<td>CEM 161</td>
<td>1</td>
<td>ISS 2XX</td>
<td>4</td>
</tr>
<tr>
<td>EGR 100</td>
<td>2</td>
<td>MTH 133</td>
<td>4</td>
</tr>
<tr>
<td>MTH 132</td>
<td>3</td>
<td>PHY 183</td>
<td>4</td>
</tr>
<tr>
<td>WRA 1XX</td>
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<td></td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>Total</strong></td>
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### Sophomore Year

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>BS 162</td>
<td>3</td>
<td>CEM 143</td>
<td>4</td>
</tr>
<tr>
<td>IAH 201-210 (A)</td>
<td>4</td>
<td>BE 230</td>
<td>3</td>
</tr>
<tr>
<td>MTH 234</td>
<td>4</td>
<td>CE 221</td>
<td>3</td>
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<tr>
<td>PHY 184</td>
<td>4</td>
<td>MTH 235</td>
<td>3</td>
</tr>
<tr>
<td>BE Choice B</td>
<td>2</td>
<td>IAH 211 or &gt;</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
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### Junior Year

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<tbody>
<tr>
<td>BE 332</td>
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<td>BE 350</td>
<td>3</td>
</tr>
<tr>
<td>CE 321</td>
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<td>BE 360</td>
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<td>BE 351</td>
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<td>BE 385</td>
<td>3</td>
</tr>
<tr>
<td>BE 334</td>
<td>3</td>
<td>CE 274</td>
<td>1</td>
</tr>
<tr>
<td>ISS 3XX</td>
<td>4</td>
<td>BE Choice C</td>
<td>3-4</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td><strong>Total</strong></td>
<td><strong>16-17</strong></td>
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</table>

### Senior Year

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<th>Fall</th>
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<th>Spring</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BE 485</td>
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<td>BE 487</td>
<td>3</td>
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<tr>
<td>BE Choice D</td>
<td>3-4</td>
<td>BE Choice E</td>
<td>3</td>
</tr>
<tr>
<td>BE Choice E</td>
<td>3</td>
<td>BE Choice E</td>
<td>3</td>
</tr>
<tr>
<td>BE Choice E</td>
<td>3</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>Elective</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15-16</strong></td>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
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</tbody>
</table>

## Program Educational Objectives

Graduates of the MSU Biosystems Engineering Undergraduate Program are expected to succeed in diverse careers where they integrate and apply principles of engineering and biology to a wide variety of globally important problems. MSU Biosystems Engineering graduates are expected to attain that success by:

- identifying and solving problems at the interface of biology and engineering, using modern engineering techniques and the systems approach;
- analyzing, designing, and controlling components, systems, and processes that involve critical biological components; and
- demonstrating vision, adaptability, creativity, a practical mindset, effective communication skills for technical and non-technical audiences, the ability to work in diverse, cross-disciplinary teams, and a commitment to sustainability, continuing professional growth, and ethical conduct.

Updated and approved by the Biosystems Engineering faculty (May 2016), the Biosystems Engineering Industry Advisory Board (April 2016), and the Biosystems Engineering Student Group (Nov 2014).

Last revised June 2016
Resumes by graduation year

December 2019........ 1
   Duckworth, Jacob.......... 1
   Guzy, Julia ................ 2
   MacIntyre, Brittany ...... 3
   Walls, Elizabeth .......... 4

May/August 2020 .... 5
   Allen, Leah................ 5
   Carmody, Anna.............. 6
   Coaster, Natalie.......... 7
   Crow, Rachelle ............ 8
   Donovan, Meghan.......... 9
   Gardner, Stephanie ...... 10
   George, Amanda .......... 11
   Gonzalez, Aly............. 12
   Gower, Allyson............ 13
   Jain, Esha............... 14
   Jansen, Peter .......... 15
   Kravaritis, Alex ........ 16
   Lopez, Ricci.............. 17
   Lyon, Scott............... 18
   Macki, Keegan............ 19
   Martin, Devin............ 20
   McDonald, Emma.......... 21
   Meade, Jillian .......... 22
   Mehall, Jessica .......... 23
   Naseem, Nama........... 24
   Paulson, Rachel ....... 25
   Peake, Alexandrea ....... 26
   Pelfery, Sean ........ 27
   Pelland, Taylor.......... 28
   Peruski, Emily .......... 29
   Piper, Scott............... 30
   Quillan, Taylor .......... 31
   Raschke, Anna.......... 32
   Roberts, Courteney ...... 33
   Shellhouse, Sydney ...... 34
   Thomas, Aryn ........... 35
   Vanburen, Tyler......... 36

December 2020 ..... 41
   Freeby, Meredith ........ 41

2021 ...................... 42
   Burtovoy, Sydney ........ 42
   Riordan, Joseph .......... 43
   Shapin, Rachel .......... 44
   Smith, Matthew .......... 45
   Ziegler, Alicia ......... 46

2022 ..................... 47
   Ma, Andrea................ 47
   Marks, Annaliese......... 48
   Sio, Isabella............ 49

2023 ..................... 50
   Jensen, Kaitlyn.......... 50
   Jeswin, David.......... 51

Graduate Students / Recent Graduates ... 52
   Hauda, Jessica .......... 52
   Skornia, Katelyn......... 53
Department of Biosystems and Agricultural Engineering
MICHIGAN STATE UNIVERSITY

Resume Book
Fall 2019

Expected December 2019 Graduates
Jacob Duckworth  
3360 Elderwood Ave. Holland, MI 49424 - duckwo18@msu.edu (616) 405-9235

Education

**B.S Biosystems Engineering, B.S Physics**  
Michigan State University, East Lansing, MI - GPA: 3.98  
*Expected December ’19*

Experience

**National Superconducting Cyclotron Lab Nuclear Physics Research** - East Lansing, MI  
*September ’16-Present*  
PI: Dr. Sean Liddick, MSU NSCL and Department of Chemistry  
- Characterizing energy and time resolution of cerium bromide scintillation detectors  
- Analyzing total absorption spectroscopy data to extract beta decay characteristics from rare isotopes

**Physics & Astronomy Undergraduate Learning Assistant** - East Lansing, MI  
*August ’18-Present*  
Physics 184 Electricity and Magnetism, Professor Oscar Naviliat-Cuncic  
- Assist students for 10 hours a week in the physics learning center  
- Proctor three midterm exams for the 275-student class

**NASA Johnson Space Center Summer 2018 Internship** - Houston, TX  
*June ’18-August ’18*  
Mentor: Cody Burkhart, Advanced Resistive Exercise Device Project Manager  
- Created an exercise analysis and optimization tool (Spiritum) based on respiratory, cardiovascular, and activity data from the Hexoskin Smart shirt wearable sensor  
- Implemented novel methods of visualizing physiological data and researched future machine learning applications  
- Trained NEEMO-23 (NASA Extreme Environment Mission Operation-23) crew members

**BE Undergraduate Teaching Fellow** - East Lansing, MI  
*January ’18-May ’18*  
Professor Steven Safferman, BE 230  
- Lead exam review sessions, graded homework assignments, and held weekly office hours

**NASA Johnson Space Center Fall 2017 Internship** - Houston, TX  
*August ’17-December ’17*  
Mentor: Cody Burkhart, Advanced Resistive Exercise Device Project Manager  
- Created and validated a model to provide post-exercise nutrition information to NASA crew members using a variety of wearable sensors  
- Integrated a biofeedback program with existing hardware to modify resistance based on live heart rate data  
- Collaborated closely with NASA engineers, extra vehicular activity physiologists, and nutritionists

**Ford Motor Company Product Development Internship** - Dearborn, MI  
*May ’17-August ’17*  
PI: Dr. James Anderson, Ford Motor Company  
- Completed a one-month aging study on biodiesel in engine oil to determine the oxidation rate  
- Performed TAN, peroxide value, ester value, density, viscosity, and infrared spectroscopy tests on aged samples  
- Identified the presence of natural antioxidants in biodiesel using vacuum distillation

**Professorial Assistantship Research** - East Lansing, MI  
*September ’15-May ’17*  
PI: Dr. Christopher Saffron, Biosystems and Agricultural Engineering  
- Determined higher heating values of bio-oil samples using a bomb calorimeter  
- Performed Soxhlet Extraction experiments to determine the most efficient means of chemically pretreating biomass for upgrading.

Activities

- MSU Honors College  
  *August ’15-Present*
- Intern Space Program Rocketry Committee  
  - Designed and 3D printed payload bay, assisted in payload team management  
  *August ’17-Present*
- NASA PAXC (Pathways Agency Cross-Center Connections)  
  - Tours of Kennedy Space Center and SpaceX’s Hawthorne Production Facility  
  *August ’17-Present*
- MSU Biosystems Engineering Club  
  - BE Representative and Social Chair  
  *May ’18-Present*
- MSU Physiology Society and MSU Astronomy Club member  
  *August ’16-Present*
- NASA-JSC middle school outreach committee and tours and lecture committee  
  *August ’17-August ’18*
- Hurricane Harvey relief efforts  
  *September ’17*

Honors and Awards

- MSU Dean’s list  
  *September ’15-Present*
- NASA Fall 2017 Outstanding Intern Award  
  *December ’17*
- High Achiever Award, MSU College of Engineering  
  *May ’16*
- West Ottawa High School Salutatorian  
  *June ’15*
Julia Marie Guzy
4572 Gentwood Drive • Williamsville, NY • 14221
(716)-908-8641 • guzyjuli@msu.edu

Education

Michigan State University; East Lansing, MI • August 2016-Present
B.S., Biosystems Engineering
● Expected graduation is December 2019
● Overall GPA of 3.4/4.0

Michigan State Honors College; East Lansing, MI • August 2016-Present
Honors College Distinction Scholarship Recipient

University College Dublin; Dublin, Ireland • Summer 2016
MSU Freshman Seminar Abroad Participant

Williamsville East High School; Williamsville, NY • September 2012-June 2016
Advanced Regents Diploma with Honors

Experience

Molecular and Cellular Imaging Laboratory; East Lansing, MI • December 2018-Present
Undergraduate Research Assistant
● Carries out studies of biomaterial degradation for Magnetic Particle Imaging (MPI) nanoparticles
● Independently performs studies on in vivo animal models, looking at tissue engineered scaffold degradation through serial microCT scans
● Develops inorganic nanoparticle contrast agents for MRI and CT imaging
● Performs chemical and biological laboratory tasks and carries out medical imaging procedures

Biosystems Engineering Senior Design Project; East Lansing, MI • August 2018-May 2019
Project Manager
● Worked with the Duke University Carbon Offsets Initiative to develop peer verification documentation for livestock anaerobic digester carbon offset production
● Lead the project by organizing long term schedules, managing client communication, and delegating tasks for team members to complete

Pope Law Firm; Lockport, NY • June 2015-Aug 2015
Assistant to Paralegals
● Classified and indexed hundreds of cases, wills, and various other legal documents

Delphi Automotive; Lockport, NY • August 2014
Student Intern
● Observed CAD work, research and development testing, and product engineering in the areas of Mechanical, Electrical, and Materials Science

College Activities

Microbiology Club; East Lansing, MI • August 2016-Present
● Explores areas of microbiology research through lectures given by professors, and also touring labs throughout campus

Honors College Service Club; East Lansing, MI • August 2016-Present
● Volunteers at various events, such as children’s science nights at local zoos and schools
● Strengthens communication and planning skills while managing groups of children
Brittany L. MacIntyre
macinty9@msu.edu, 734-620-1411, 571 Delaford Dr., Canton, MI, 48188

EDUCATION

Michigan State University, East Lansing, MI
Expected Graduation: December 2019
Bachelor of Science Biosystems Engineering, Biomedical Concentration, Senior
Honors College Member, Tau Beta Pi Engineering Honors Society Member
Dean’s List All Semesters 2015 - 2018.
Overall GPA: 3.8/4.0

Biomedical Engineering Study Abroad, NSW, Australia
Exchange program at the University of New South Wales in Sydney
January 2017 - June 2017

JOB EXPERIENCE

TRIO Tutoring, East Lansing, MI
Academic Coach
August 2017 - Present
• Tutors students in STEM classes, that fall under economically disadvantaged, disabled or first-generation college students, to improve grades and study habits.

Covance, a division of LabCorp, Cary, NC
Clinical Research Associate (CRA) Intern
May 2019 - August 2019
• Assisted CRAs with preparation for site visits and monitored site performance (i.e. running reports, QC of files (checking for missing documents), resolving action items from previous visits).
• Liaised with the project team and others to ship and track clinical trial supplies, e.g. Case Report Forms, study medication, lab kits, ensuring that sites had sufficient supplies to continue recruitment.
• Engaged in weekly formalized professional development training from leaders in the organization.
• Planned a philanthropy project, to raise money and supplies for the Ronald McDonald House.
• Familiar with FDA regulations and Good Clinical Practice (GCP).

Implementation Trip, Dar es Salaam, Tanzania, Africa
Tanzania Project Team Engineer
August 2017 - June 2018
• Collaborated with a team of engineers from Michigan State and in-country, to design and install a large-scale rainwater catchment system for a school in May/June 2018.
• The system provides non-potable water to 600 students, teachers, and community members.

Michigan Medicine (U of M Hospital), Ann Arbor, MI
Research Assistant, Rheumatology Shadow
June 2017 - August 2017
• Assisted in clinical research for lupus to better understand autoimmune disorders.
• Maintained patient records using REDCap to ensure study data was uploaded into the database.
• Shadowed internal medicine physician to enhance familiarity in the medical field.

DTE Energy, Detroit, MI
Engineering Intern
May 2016 - August 2016
• Eliminated discrepancies and created new circuit operating maps using ESRI GIS mapping software.
• Informed customers about the cause and solution management practices to their frequent power outage complaints, using data from several internal databases.
• Explained damage and repair plans to customers in heavy outage areas, by walking door to door.

EXTRACURRICULARS

Engineers Without Borders Michigan State Chapter
President 2018-19, Previous Positions Held: Volunteer Coordinator, College of Engineering Coordinator
August 2015 - Present
• Works in the Tanzania Project Team. Writes grants and scholarship letters to fundraise for the project.
• Traveled to New Orleans for an alternative spring break, to help hurricane Katrina victims by rebuilding houses.
• Attended the national and regional conferences to network with other EWB professionals.
• Fall 2019 Tanzania Project Lead. Organizing monitoring trip to Tanzania.

Biomedical Engineering Society MSU
Marketing position, E-board
August 2015 - Present
• Helps to design promotional content. Creates flyers and posters for club events, career fairs, and sponsor funding, to market BMES to the MSU community and biomedical companies.
• Helps organize presentations from companies and professors to speak to students about their research.
Elizabeth Walls  
wallseli@msu.edu // 248.660.7144  
676 Shoreline Drive, Fenton, MI 48430

Objective  
**Full time position for early 2020 in food manufacturing, with emphasis in sustainability and engineering.**

Education  
**Michigan State University East Lansing, MI**  
Fall 2015 – December 2019  
B.S. Biosystems Engineering  
Concentration: Ecosystems  
Minor in Environmental & Sustainability Studies  
GPA: 3.5 / 4.0

Experience  
**Kellogg Global Engineering Intern**  
**Battle Creek, MI**  
Summer 2019  
- Investigated various technologies for icing application and continuous mixing for cold form bars to improve manufacturing reliability and quality control  
- Collaborated with a cross-functional team to evaluate process improvement opportunities for PopTarts  
- Centralized a list of assets for the PopTarts production process across 3 plants  
- Demonstrated flexibility by completing tasks for my mentor’s product start-up project when needed

**Cargill Protein Operations Intern**  
**Butler, WI**  
Summer 2018  
- Reduced shrink by decreasing the amount of wasted meat that resulted from the packing area  
  - Proposed innovative ways to reduce the amount of meat wasted by modifying machinery and behaviors that could save over $100,000 annually  
  - Collected data and created standards for the amount of daily inedible  
  - Updated the Job Task Procedure for collecting proper data

**Michigan Department of Environmental Quality Intern**  
**Lansing, MI**  
Summer 2017  
- Developed a database to record the public comments on the Pipeline 5 Alternative Analysis Report  
  - Attended public hearings across the state regarding Pipeline 5  
  - Delegated and provided support for the project team members  
- Led a project which arranged and attended field work opportunities with engineers in the DEQ  
  - Tested the pH, DO, and temperature of the Grand River near Grand Haven  
  - Assisted in evaluating dam inspections in Southeast Michigan  
- Researched new developments in Storm Water Hydrodynamic Separators  
- Compiled and analyzed air quality data from the power plants in Michigan for the air quality report

**Eagle Excavation Laborer, Office Staff**  
**Flint, MI**  
2013-2016  
- Assisted in setting grades, foundations, and soil testing  
- Sorted job bids to improve organization while working in the main office

Skills and Accomplishments  
Basic knowledge in AutoCAD, Matlab, and GIS  
Dean’s List  
2015, 2018, 2019  
Senior Design Project – Removing silt build up in canal  
2018 – 2019  
Junior Design Project – Designing a compost turner for a farm in West Africa  
2018

Affiliations  
**Engineers Without Borders MSU Chapter- Club Member**  
2018 – present  
**Michigan State University Club Softball Team**  
2015 – 2016
Resume Book
Fall 2019

Expected May/August 2020 Graduates
Leah M. Allen
Phone: (269) 290-3790 | Email: allenle5@msu.edu
10 Witherell St. Apt 3303 | Detroit, MI 48226

EDUCATION

Michigan State University | East Lansing, MI | GPA: 4.0/4.0
College of Engineering, Bachelor of Science, Biosystems Engineering
Biomedical Concentration, Minor in French, Member of Honors College

Expected May 2020

PROFESSIONAL EXPERIENCE

Stryker Corporation | Orthopaedic Division | Mahwah, NJ
Patient Specific Solutions Intern in Joint Replacement Product Development
May 2019 – Aug 2019
- Designed a custom femoral replacement device and oversaw manufacturing and shipment of the part within 8 weeks
- Developed a feature in CAD to streamline the design process for custom devices and decrease project lead-times
- Established consistency in documentation and eliminated duplication of research efforts by centralizing information pertaining to previous patient cases in a well-organized database, which increased the team’s regulatory efficiency
- Designed a universal fixture for manufacturing processes that is fully adjustable to account for the unique geometries of custom devices, eliminating the need for custom fixtures per case and decreasing manufacturing lead-times
- Determined the feasibility of beginning a new project by communicating with surgeons, proposing designs, and collaborating cross-divisionally to assess cost, market need, and competitor landscape

Bazil Research Lab | Michigan State University
Research Assistant to Dr. Jason Bazil
Aug 2018 – May 2019
- Studied cardiac energetics and the effect of ischemia-reperfusion injury on mitochondrial physiology
- Analyzed spectroscopy data to elucidate the way certain enzymes are impacted by oxidative damage in the heart
- Conducted an experiment with a new enzyme assay to gather additional data supporting the team’s research efforts

Department of Biosystems and Agricultural Engineering | Michigan State University
Undergraduate Teaching Assistant
Aug 2018 – Dec 2018
- Facilitated class discussions about effective problem-solving approaches to bioengineering analysis problems
- Encouraged collaboration in small group settings and resolved conflicts amongst students working on team projects
- Assessed students’ understanding of class material and aided in the development of grading rubric criteria
- Mentored students on career development and guided in the establishment of academic and professional goals

Stryker Corporation | Medical Division | Kalamazoo, MI
Advanced Quality Engineering Intern in New Product Development
May 2018 – Aug 2018
- Conducted usability validation studies on new medical devices to identify use errors within the medical field and developed strategies and design changes to mitigate risks resulting from user error prior to product launch
- Performed a gap analysis for medical devices sold in Europe to ensure adherence to new industry regulations
- Initiated remediation activities to meet biocompatibility and usability regulations, and collaborated with cross-functional teams to drive consistent documentation of remediation efforts

LEADERSHIP AND OUTREACH

Engineers without Borders (EWB) | Chapter President | Michigan State University
- Direct executive board and provide strategic leadership to develop and achieve organization goals as current President
- Maintained records and administration, organized meetings and recorded meeting minutes as former Secretary
- Implemented a student-engineered composting latrine system in El Salvador to prevent illness caused by exposure to polluted water and educated the community about personal hygiene and its relation to the transfer of disease

Junior Design Project (BE 385) | Team Member | Michigan State University
- Developed a menstrual product for women in India that is sustainable within the region’s environmental, economic, and social constraints by optimizing overall design, material selection, and product manufacturing and distribution

Society of Women in Engineering (SWE) | National Member | Michigan State University

HONORS AND ACCOLADES

George and Betty Merva Scholarship Award | Spring 2018
Michigan State University Dean’s List | Fall 2016 – Present

ADDITIONAL SKILLS

Siemens NX, Pro-Engineer/Creo, Materialise Mimics, Materialise 3-Matic, MATLAB, Microsoft Excel
Anna R. Carmody
carmodya@msu.edu / M: 402-689-7427 / 1033 Audubon Road, Grosse Pointe Park, MI 48230

Education

Michigan State University | East Lansing, MI
Bachelor of Science Biosystems Engineering
  • GPA: 3.60
  • Dean’s List Honoree all semesters

Ecology of the Mountains Study Abroad India
  May 2018-June 2018
  • Furthered cultural knowledge, supported MSU research and examined waste management throughout the Kumaon Region of the northern Himalayan region of India.

Work Experience

WaterRising | Detroit, MI
May 2019-Present
  • Expand the nonprofit accelerator by engaging Michigan communities in philanthropy and sustainability.
  • Collaborate with global water experts in developing innovative technology to address the global water security crisis.

Parjana® Distribution | Detroit, MI
May 2019-August 2019
  • Assisted with analysis of hydrogeology, geography and climate as it related to the Energy-passive Groundwater Recharge Product (EGRP®).
  • Diversified my skillset by developing marketing tools for the company.

Institute of Water Research | East Lansing, MI
November 2018-January 2019
  • Soldered and installed circuit boards into water flow detectors
  • Monitored water flow detectors to understand the impact of flow on water quality

Department of Environmental Quality Intern | Lansing, MI
September 2018-December 2018
  • Developed projects involving inland lake factsheets and aquatic stat analysis on key environmental issues as a collaborator on a team.
  • Analyzed and communicated data effectively on specific project focuses.

Extracurricular

Biosystems Engineering Club | East Lansing, MI
September 2018 -Present
  • Participate in activities to better understand the opportunities and challenges within the field of Biosystems Engineering work.
  • Engage with various faculty, peers, and industry representatives to gain insight and perspective

MSU Student Horticulture Association | East Lansing, MI
October 2016- Present
  • Network with peers and gain experience within the Horticulture industry.
  • Perform community service around the Lansing area in support of local horticulture development.
Natalie Coaster
933 Grand River Ave, East Lansing, MI 48823 | (616) 558-8026 | coaster1@msu.edu

Education

Michigan State University | East Lansing, MI
· Bachelor of Science: Biosystems Engineering with a Biomedical Concentration
  o Minor: Global Public Health & Epidemiology
  o GPA: 3.94/4.0
  o Member of the Honors College, Dean's List (every semester), and Phi Sigma Theta Honor Society

Expected May 2020

Experience

Undergraduate Research Assistant | MSU's Risk Modeling Lab | August '18-Present
· Manage the Quantitative Microbial Risk Assessment Wiki, which hosts academic papers and pathogen information, to ensure that information is updated and easily accessible
· Demonstrate problem-solving skills by finding and fixing database bugs

Drug Product Summer Intern | Pfizer Global Supply | Kalamazoo, MI | May '19-August '19
· Used Lean Six Sigma problem solving, modeling, and data analysis tools in order to identify a root cause for elevated endotoxin levels in a medical device
· Developed a solution within the process that lowered endotoxins levels to meet specification, which resulted in $200,000 savings and reduced the company's compliance and quality risk
· Identified tools that will flag the process when out of control so that the issue does not repeat

Analytical Chemistry Intern | Covance Food Solutions | Madison, WI | May '18-August '18
· Demonstrated Good Laboratory Practices in a ISO-15189 contract lab
· Validated on Crude Fat Extraction by Acid and Base Hydrolysis, as well as Fat Soxhlet Extraction in a chemistry laboratory in order to extract lipids out of food samples
· Learned the importance of lab documentation to supply clients with complete & correct data in a timely manner

Gas Major Accounts Intern | DTE Energy | Grand Rapids, MI | May '17-August '17
· Utilized problem solving and critical thinking skills to assist Gas Major Account Managers
· Analyzed, troubleshooted, and solved customer energy gas delivery and energy utilization issues
· Applied Excel, Salesforce, and SAP knowledge in order to perform analysis on spreadsheets

Activities

Relay for Life Chair | Society for Women Engineers (SWE) | April '19-Present
· Utilized networking skills by connecting with SWE members in order to increase Relay participation

Skills
· MATLAB
· AutoCAD
· LabVIEW
· Mininab
· SAS
· SAP/Salesforce
· Microsoft Word
· Microsoft Excel (experienced)
· Microsoft PowerPoint
Rachelle L. Crow
7760 Westwood Road, Findlay, OH 45840 • (567) 429-8535 • crowrach@msu.edu • linkedin.com/in/rachelle-crow

Education
Michigan State University (MSU) – East Lansing, MI
Bachelor of Science, Biosystems Engineering; Ecosystems Engineering Concentration
Aug 2016 – Present
• GPA 3.98/4.0; Honors College; Dean’s List – all semesters
• Minors – Environmental and Sustainability Studies, Sustainable Natural Resource Recreation Management
• Ecological Engineering in the Tropics Study Abroad in Costa Rica 2017 – 2018

Experience
MSU Biosystems and Agricultural Engineering – East Lansing, MI
Undergraduate Teaching Fellow
Aug 2019 – Present
• Engage underclassmen in course material via group projects facilitation and individual conversations
• Teach students introductory problem-solving principles in preparation for advanced techniques

MSU Biosystems and Agricultural Engineering – East Lansing, MI
Research Assistant for Dr. Steven Safferman
Aug 2016 – Present
• Researched winery wastewater pre-treatment needs for Michigan stakeholders
• Designed laboratory experimentation to collect data on agricultural nutrient runoff
• Co-authored and published literature reviews online in 2017 and conference proceedings in 2019 by reviewing approximately 50 articles relating to winter manure land application
• Presented findings at Undergraduate Research and Arts Forum (UURAF) 2017 – 2019

Poet Biorefining – Fostoria, OH
Plant Engineering Intern
May – Aug 2019
• Developed a new water purification process prior to cooling tower system using PI and DCS to decrease chemical and energy use, conserve water, and save $53,000 annually
• Analyzed process inputs by examining bacteria cultures to discern infection sources
• Increased consistency in sampling methods by writing a detailed procedure to maintain testing quality
• Managed shutdown projects by creating Energy Control Plan, Line Break, Hot Work, Job Hazard Analysis, and Management of Change forms and communicating with contractors to expedite tasks
• Trained 45 employees on Stormwater Pollution Prevention to encourage regulatory compliance

Fishbeck, Thompson, Carr & Huber, Inc. – Lansing, MI
Water and Wastewater Intern
May – Aug 2018
• Inspected wastewater collection systems for municipalities to assess failure risk
• Created and updated Excel spreadsheets with flow data to analyze sewer system dynamics
• Verified data collected by automated systems by establishing tributary areas for flow monitors using ArcGIS and calculating residential equivalency units
• Summarized sewer inspection reports and calculated pipe rating scores

Organizations & Leadership Positions
Mortar Board National Honors Society
Michigan Water Environment Association (MWEA)
Tau Beta Pi Honors Society (TBP)
• Michigan Alpha Chapter Communications Chair 2019
Strategic Planning Committee – MSU Biosystems and Agricultural Engineering
American Society of Agricultural and Biological Engineers (ASABE)
Spartans Rebuilding Michigan Club
• Fundraising Committee member 2017 – 2018
Biosystems Engineering Club
• President 2019 – 2020, Vice President 2018 – 2019, Treasurer 2017 – 2018

Awards & Scholarships
• Udall Scholarship Nominee, UURAF First Place Recipient, College of Engineering – High Achiever, 2016 – 2019
• TBP Scholarship, ASABE MI Scholarship, and 13 other scholarships worth 75% of college tuition
Meghan B. Donovan
639 S Whitman Ct SE Ada, Michigan 49301
(616) 916-9720 | donova90@msu.edu

Objective
To secure full-time employment at an ethical and dynamic company innovating product development, driving efficiency, and using my technical abilities, communication skills and enthusiasm to ensure continue success of an organization

Education
Michigan State University, Honors College | East Lansing, MI
Bachelor of Science, Biosystems Engineering
• Cumulative GPA: 3.98

Employment
Amway: Research and Development – Beauty Investigations Intern
May-August 2019
• Substantiated 15 new topical skincare benefits through research and evaluation of data for 12 botanicals
• Accelerated claims substantiation by creating an extensive template to summarize ingredient performance & life-cycle information that leveraged data from 100+ scientific articles, 40+ test reports, and 20+ experts
• Streamlined substantiation for two types of claims (hydration & moisture barrier) to develop standard operating procedure guidelines that included 6 categories of claims

Summit Laboratory LLC: Food, Water and Air quality - Microbiology Food Safety Intern
May-August 2018
• Analyzed food & water samples to detect, quantify, and report pathogens
• Identified highly contaminated areas in 10+ manufacturing plants
• Solved sample contamination problems by restructuring laboratory layout and procedures to ensure sample integrity

Michigan State University: Community Nutrition Intervention Lab- Research Assistant
Sept 2016-May 2017
• Collected, organized, and analyzed survey response data to identify successful intervention strategies to increase the consumption of fruits and vegetables in Michigan Elementary Schools
• Conducted a Literature Review on 50+ papers to evaluate the impact of introductory nutrition courses’ on College students’ nutritional knowledge, behaviors, and dietary habits
• Presented findings at MSU’s Undergraduate Research Arts & Forum May 2016

Extracurricular/Organizations
Greeks Relying on Christ – Executive Board Member
January 2016-present
• Organized 10+ social events and 3 community outreach events each year
• Conducted weekly meetings by setting and executing agendas
• Promoted club through social media and networking with fellow Greek women
• Created a budget and reviewed expenses for events, supplies, and apparel

Alpha Xi Delta Fraternity – Community Service Chair
January 2017 -December 2018
• Organized monthly events that culminated to 600+ hours of service
• Created and maintained relationships with local organizations
• Led bi-weekly meetings to discuss how to promote community engagement and sisterhood

Activities & Honors
• Academic Tutor & Mentor for Freshmen Engineering Students August 2018- present
• Biosystems Engineering Club, Member August 2018- present
• Youth Activism and Leadership Study Abroad | Johannesburg, South Africa August 2016
  • Selected by Faculty to present Comparative Culture Analysis at MSU 2016 Learning Abroad conference
• Professorial Assistantship Award
• Slay-Maker Kinsey Award
• STATE Scholarship
• Michigan Competitive Scholarship
Stephanie Gardner
734-502-9233 | gardn319@msu.edu

Education

Michigan State University
East Lansing, MI
Bachelors of Science, Biosystems Engineering, Honors
Expected Graduation: May 2020
Bachelors of Science, Genomics and Molecular Genetics, Honors
GPA: 3.51

Experience

MSU Dairy Plant
East Lansing, MI
Student Supervisor May 2018-Present
• Assist with production of various types of ice cream and cheese to be sold at MSU and other local locations
• Follow good manufacturing practices and standard operating procedures to ensure a quality product and prevent food borne illness
• Work independently to ensure CIP cycles are run properly and tasks are completed in a timely manner
• Prepared a training document for new employees to ensure GMPs and SSOPs were followed

Ecolab
Detroit, MI
Food & Beverage Account Manager in Training Intern June 2019-August 2019
• Surveyed facilities in order to optimize chemical and water usage
• Tested cleaning solution concentrations to ensure proper sanitation standards were met
• Assisted in service visits to food plants to ensure equipment was calibrated and working properly
• Troubleshoot CIP cycles that were not meeting necessary parameters
• Presented on projects to Ecolab executives at headquarters in Saint Paul, MN

Ford Motor Company
Dearborn, MI
Interior Craftsmanship Intern June 2016-August 2016
• Compiled data on company and competitor vehicles from multiple sources to ensure Ford maintained a competitive edge in design and materials used
• Analyzed data to create a generic model for door trim pieces on Ford vehicles to standardize and optimize manufacturing process
• Presented data on gooseneck trunk hinges on Ford vehicles versus competitor vehicles to highlight both strong points and areas of Ford designs needing improvement

Ford Motor Company
Dearborn, MI
Lithium Ion Battery Research Intern June 2015-August 2015
• Assembled and tested battery cells using different additives to increase first cycle capacity
• Presented on findings and proposed future tests to run
• Prepared samples of electrodes for X-ray diffraction testing done after internship ended

Activities and Leadership

Society of Women Engineers
September 2016-Present
• Current Outreach Director to assist members in planning outreach events and collect data on demographics of attendees
• Held three different chair positions planning outreach events for younger girls to introduce them to engineering through hands-on activities
• Attended WE Local Milwaukee, WE18, and WE19 Conferences to network and learn about the importance of diversity in the workplace
• Volunteered at various community service and outreach events to connect with other members and help better the community

MSU Campus Band
September 2016-Present
Honors Times Two Mentoring September 2016-May 2017
Amanda George
2104 Belle Meade Dr., Davison, MI 48423
(810) 399-3270 | georg118@msu.edu

Objective
To obtain a position in a professional field of expertise to broaden my experiences and develop my knowledge of applying engineering techniques to biological, food, and community systems

Education
Michigan State University, East Lansing, MI Expected May 2020
Bachelor of Science: Biosystems Engineering GPA: 3.814
Sustainable Agriculture and Food Systems Minor

Experience
Remote Sensing & GIS, East Lansing, MI May 2018-Present
Student Assistant
• Constructed ArcMap Databases for Iosco County, Michigan for parcel fabrication
• Document interpretation from 1800s-present and legal tax documents for digital parcel construction

The Flint Ingredient Company, Beecher, MI May-August 2017, May-August 2018
Organic-Certified Farm Coordinator
• Planted and maintained fruits/vegetables according to crop rotation variables
• Harvested a wide variety of fruit and vegetable crops according to safe harvesting practices for storefront, market, deli, mobile market and CSA distribution

The Local Grocer, Flint, MI May-August 2017
CSA Organizer, Cashier and Inventory
• Transported vegetables from the farm to the store location to sort, wash, pack and distribute to CSA
• Assisted customers with finding products to meet their needs and handled payments of WIC and EBT
• Received goods from deliveries, priced and stocked the items

Michigan State University Recycling Center and Surplus Store, East Lansing, MI Sept. 2016-May 2017
Sort Line and Hamper Employee
• Sorted and organized donations and recycling from on-campus and local communities
• Prepare sorted recyclables to be processed into bales that are profitable for the University as well as kept non-biodegradable materials out of the landfill

Extracurricular Activities and Organizations
University Christian Outreach, Member, Formation Member April 2017-Present
Riverview Church - Holt venue, Member Feb. 2016-Present
Michigan State University Varsity Cross Country & Track and Field, Student-Athlete Sept. 2015-Present
Research for Geography Professor Nathan Moore, Kenyan Rainfall Pattern Data Sept. 2018-Dec. 2018

Skills
Experienced: Microsoft Word, Excel and PowerPoint
Basic Knowledge: Matlab Computer Programing Software, ArcGIS, QGIS
Proficient: American Sign Language

Volunteer Experience
• Student Athlete Advisory Committee, Michigan State University Sept. 2016-Present
• Women’s Rescue Mission, Lansing MI Jan. 2017-May 2017
Objective
To secure full-time employment in the biomedical industry. A dedicated and self-motivated biomedical engineering student with four years of academic experience, one with cell marker research and three within the field of engineering.

Education
Michigan State University, East Lansing, MI
- B.S Biosystems Engineering with Biomedical Concentration Expected May 2020

Experience
Marketing Intern | Seraph Consulting | Troy, MI Summer 2019
- Performed a study to improve SEO site rankings that included a competitor analysis
- Completed several Harvard style case studies for both internal and clientele purposes
- Traveled as a member of the engagement team to work on a project, on site, at one of the biggest logistics companies in the nation to improve turnover rate and through peak season

Quality Eng Intern | TI Auto Corp. | Auburn Hills, MI Summer 2018
- Updated cost sort summary between internal and external customers
- Critiqued warranted parts with the Keyence VHX-5000 microscope and depth gauge
- Performed leak tests for verification on returned parts
- Completed PRAS reports for FCA summarizing the narrative and analysis of each returned part
- Produced a new database on Excel connecting part prints to their corresponding control plans and Process FMEA
- Investigated warranty claims for different external costumers

Research Student | Henry Ford Health Systems | Detroit, MI Summer 2017
- Worked in Public Health with Epidemiology Prostate Cancer Research studies
- Analyzed malignant and benign samples using VENTANA image viewer to capture images of scanned slides
- Identified inflammation cell markers
- Compared data on how inflammation cell markers contributed to prostate cancer tumor progression
- Produced quantitative results running different macro’s

HVAC Eng Intern | TI Auto Corp. | Auburn Hills, MI Summer 2016
- Created a database to manage over one thousand components to aid engineers in future projects
- Performed and executed an impact test on laser welded joints using a Keyence VHX-5000 microscope
- Critiqued and analyzed joint data for company to apply for a patent to reduce costs
- Revised various prints for automotive clamps and hoses

Mfg Eng Intern | TI Auto Plant | New Haven, MI Summer 2015
- Assisted the Logistics Manager with computing and shipping
- Systematized and updated Material Safety Data Sheets
- Completed data entry on plant distribution

Extracurricular Activities/ Skills
- Biomedical Engineers Society (BMES), MSU, East Lansing, MI Spring 2016-Present
- Biosystems Engineering Club (BE), MSU, East Lansing, MI Fall 2015-Present
- Society of Women in Engineering (SWE), MSU, East Lansing, MI Fall 2015-Present
- MATLAB, MacOS, Expensify, ShareFile, Citrix, Mathematica, Photoshop, KEYENCE microscopy, VENTANA Image viewer, NX
- Fluent in Spanish
Allyson Gower

1968 Carter Ridge Ct., Auburn, MI 48611 | 989-992-3759 | gowerall@msu.edu

Education
Michigan State University, East Lansing, MI
Bachelor of Science, Biosystems Engineering May 2020
Cumulative GPA: 3.52/4.00

Experience
Meijer, Lansing, MI May 2019-August 2019
Supply Chain Intern
• Modernized the way Meijer communicates from facility to facility when sending shuttle and implemented this new communication process to capitalize on increased visibility
• Created shuttle scorecard to track daily shuttle data and start looking at trends regarding shuttle

The Hershey Company, Hershey, PA January 2019-May 2019
Process Engineering Intern
• Prepared piping and equipment for Kit Kat whole bar rework setup
• Supported project bidding process and initial purchases for a new Kit Kat product
• Collected and analyzed startup data, defect data, and controlled data
• Planned and performed the draining of production lines for a seasonal product
• Wrote professional documentation for future employers throughout my internship

Nestle Nutrition R&D Center, Inc., Fremont, MI June 2018-December 2018
Site Engineering Intern
• Managed the installation and execution of a new ingredient weighing system in the pilot plant by working with vendors and contractors
• Identified high priority pilot plant equipment and contacting suppliers to get necessary documentation
• Designed new waste removal system for part of the pilot plant with a goal of zero waste
• Enforced new sanitation process to eliminate risk of Legionella

The Dow Chemical Company, Midland, MI June 2016-August 2016
Research Internship
• Compared Ion Exchange Resin procedures from different manufacturing sites within Dow to decide which procedure performed the best and was most cost effective and time sensitive
• Contributed to daily analysis and special testing in the lab for several different kinds of resin
• Collaborated with PhD's, supervisors, and technical service engineers and scientists in the business for customer work including specialty projects
• Maintained laboratory equipment to help assure smooth operation of the Ion Exchange Lab (titrators, centrifuge, moisture balance)

Activities
Member, Phi Sigma Rho, Engineering Sorority, East Lansing, MI November 2015-Present
Mentor, Women in Engineering, East Lansing, MI September 2015-May 2018
Volunteer
• Engineering Week, Harrisburg, PA February 2019
• Southwest Little League, Bay City, MI June 2013-July 2017
• Habitat for Humanity, Midland MI August 2014 & August 2016

Skills
• Basic understanding of MATLAB program and AutoCAD
• Experienced in Microsoft Word, PowerPoint, Excel, Project, Visio
Esha Jain
15797 Johnson Creek Drive | Northville, MI 48168 | 248-909-3742 | jainesha@msu.edu

Objective
I am a senior pursuing a Biosystems Engineering degree, with a concentration in Food Engineering, at Michigan State University. I am especially interested in pursuing a career in health and human safety, which are the focus of my academic curriculum and research. I currently work as an undergraduate research assistant in a Biosystems Engineering lab on projects for the Michigan Department of Environmental Quality (DEQ) and other affiliated MSU labs and have had the opportunity to present our research at different venues. Over the years, I have been working on communicating effectively and developing analytical and problem-solving skills.

I am looking for an internship to advance my academic knowledge with industrial experience and be able to make a meaningful contribution to the organization.

Education
B.S. BIOSYSTEMS ENGINEERING (BE), MAY 2020, MICHIGAN STATE UNIVERSITY
- Biosystems Engineering with a Food Engineering Concentration (GPA: 3.43/4.0)
- Related coursework: Analysis and Design of Biological Systems and Microbial Systems, Thermodynamics, Heat and Mass Transfer, Microbiology and Food Microbiology, Food Processing, and Fluid Mechanics
- MSU Honors College Member, Dean’s List Recipient, and Tower Guard member

Experience
UNDERGRADUATE RESEARCH ASSISTANT | MSU BE DEPARTMENT | SEPT 2017-CURRENT
- Worked on a water quality citizen science project with the Department of Environmental Quality and “We the People of Detroit” citizen group.
  - Used Microsoft Excel and digitizer technology to create groups for statistical and bioinformatics testing.
  - Used Microsoft Excel and R to make individual reports for homeowners.
  - Wrote a research paper regarding this citizen science project.
- Worked on a food exposure modeling project using R
  - Debugged the R code that had the exposure model
  - Wrote a research paper regarding this food exposure modeling project.
- Learned how to data analyze, drawing conclusions, and problem solving.

VOLUNTEER | SPARROW HOSPITAL | SEPT 2016-DEC 2017
- Worked in the Clinical Engineering Department
  - Learned how to perform quality control testing on hospital equipment, like beds, incubators, and vital sign machines.

Skills & Abilities
EFFECTIVE COMMUNICATION
- Presented at MSU’s Undergraduate Research and Arts Forum and the Society of Risk Analysis’ yearly conference.
- Proficient in MATLAB and R.

LEADERSHIP
- Acting ESC Representative and former CANR Representative for the MSU Biosystems Engineering Club
- Acting Ambassador and former Treasurer of the MSU Pre-Physician Association
Education

Michigan State University (MSU), E. Lansing, MI

- Bachelor of Science (BS) Biosystems Engineering
  Concentration: Biomedical Engineering
  Expected May 2020
- Bachelor of Arts (BA) German
  Expected May 2020
- Dean’s List 5 Semesters

Experience

Project leader, MSU-Resource Center for Persons with Disabilities (RCPD), E. Lansing, MI  May 2018-Present
- Create 3D printed models for disabled persons using various software packages

Research projects, MSU, E. Lansing, MI

- Created a life cycle analysis (LCA) for alternative jet fuels using macroalgae  Jan 2019-May 2019
- Created a diagnostic biosensor for the detection of Zika-virus  Jan 2019-May 2019
- Evaluated the Baerveldt Glaucoma Shunt, which controls intraocular pressure  Aug 2018-Dec 2018
- Analyzed the various corporate legal structures in Germany  Aug 2018-Dec 2018
- Compared specific German dialects in the Rhine area (Riparian language)  Jan 2018-May 2018


- Supported project activities with project plans
- Aided in the negotiations to acquire new projects

Assistant, JanSar, Inc, Farmington Hills, MI  May 2014-Present

- Assist with technical knowledge transfer between European and North American companies
- Support activities in ongoing operations

Corporate aircraft operations (part 91), Oakland County International Airport (KPTK), Waterford, MI  Aug 2013-Present

- Manage logbooks and airworthiness directives (Ad)
- Assist with dispatch planning of aircraft
- Work with maintenance personnel for aircraft repair

German language tutoring  Sep 2010-Present

Document translation from/to German  Sep 2009-Present

Skills

- Proficient in the following software systems:
  - AutoCAD Inventor; AutoCAD; Autodesk Fusion 360; Blender
- Proficient in PC and MAC operating platforms
- Programing in C
- Native/bilingual proficiency in English and German
- Limited working proficiency in Dutch

Volunteer Experience

- Work with local support groups for the visually impaired through motivational speaking and providing technical experience  2013-Present
- Support ophthalmologists with their visually impaired patients  2013-Present
- Provide Aniridia knowledge and research to ophthalmology residents  2013-Present
Alexander Kravaritis
14083 Edgewood St. Livonia, MI, 48154 | 313-671-0070 | kravs13@gmail.com

Education

Bachelor of Science
Michigan State University | Expected May 2020
· Major: Biosystems Engineering
· Michigan State University Honors College Member

Experience

Quality Assurance Intern
E.W. Grobbel Sons, Inc. | May 2018 – August 2018; May 2019 – August 2019
· Overhauled company-wide HACCP certification procedures by designing over 30 certification quizzes.
· Communicated safety and quality concerns quickly and accurately to all relevant persons.

Logistics Team Member - Flow
Target | October 2017 – December 2017
· Contributed to highly coordinated efforts working to unload trucks and stock the store.
· Balanced accurate and efficient stoking while remaining attentive to guests.

Laboratory Assistant
Boughman Lab | Michigan State University | September 2016 – May 2017
· Maintained over 200 tanks housing thousands of arctic fish.
· Engineered a protocol for staining and counting lateral line cells using fluorescence microscopy.

Laboratory Assistant
Shade Lab | Michigan State University | September 2015 – May 2016
· Collaborated with Graduate Assistants to brainstorm and refine novel soil analysis protocols.
· Analyzed and indexed genetic samples from thermophilic soil microbes.
· Developed lab skills while working in a clean environment and using aseptic technique.

Valet
· Directed vehicles as they entered the garage for service.
· Facilitated the interaction between customers and their dedicated service consultants.

Affiliations
· Holmes Hall Association: MSU Residence Halls Association Representative
· MSU Residence Halls Association: Associated Students of MSU Representative

Skills
· Technical: Basic JavaScript, VPython, and C coding languages; basic AutoCAD
· Language: English (native), French (beginner)

Honors & Awards
· MSU Honors College 4-year STATE Scholarship
· Invited to MSU Alumni Distinguished Scholarship Competition
RICCI LOPEZ  
1301 West 143rd Street, Apt 113, Burnsville, MN 55306  
Cell: (952) 288-1892 | riccielopez@gmail.com

EDUCATION  
MICHIGAN STATE UNIVERSITY  
East Lansing, MI  
Bachelor of Science in Biosystems Engineering  
Expected Graduation May 2020

• Related Coursework
  • Properties of Biological Materials
  • Programming in MatLab
  • Microbial Systems
  • Heat & Mass Transfer

EXPERIENCE  
CANTERBURY PARK  
Shakopee, MN  
Clubhouse Server  
May 2015 - Current

• Exceptional interpersonal & team building skills with an aptitude for building rapport with a diverse range of customers
• Skillfully anticipated and addressed guests’ service needs
• Managed closing duties, including restocking items and reconciliation of any cash drawers
• Consistently adhered to quality expectations and standards

CADIT LABORATORIES  
Cuernavaca, MX  
Research Assistant  
June 2018 – July 2018

• Assessed management of clean lab hardware and consistently partook in measurement analysis of samples
• Utilized bilingual communication skills by working with laboratory managers and customers in both English & Spanish
• Participated in continuing education through self-study, attending in-services and off-site lectures and meetings
• Maintain quality control of all laboratory testing to ensure accurate and timely lab reporting

TOP DOG HOCKEY CAMPS  
Minneapolis, MN  
On-Ice Assistant Coach  
May 2017 – Current

• Assisted head coaches in conducting duties and training a diverse range of pre-teen and teenage players
• Ensured disciplined behavior of each player both on and off the ice
• Demonstrated leadership skills by displaying strong ability to coach in a professional manner to players ranging from ages 6-16 without sacrificing standards

AWARDS  
• Dean’s List  
  Fall 2015-Spring 2016

ACTIVITIES  
• Founding Father/President of Sigma Tau Gamma Fraternity at Michigan State (2017-2018)
  o Oversaw a budget of $40,000+ and coordinated event planning, risk management policies, external relations with East Lansing, etc.
• Executive Vice President, Interfraternity Council at Michigan State (2019-current)
  o Manage 28 fraternities regarding member safety, risk assessment, community relations with the city of East Lansing. Established expertise of constitutional by-laws.

SKILLS  
• Knowledge of laboratory equipment, instrumentation and terminology used in the area of responsibility
• Ability to maintain effective reporting procedures and control workflow
Objective

To secure an internship that further exposes me to the field of biomedical engineering, specifically in the area of prosthetics, diagnostic and clinical instrumentation.

Education

Michigan State University – East Lansing, MI
Bachelor of Science Biosystems Engineering Expected May 2020
• GPA: 3.0 (4.0)

Essex High School – Essex Junction, VT June 2016

Professional Experience

K.C. Scanlon Estate Sale Services – Essex, Vermont Summer 2013-Present
• Work with sales transactions
• Utilize and manage internet sales
• Price, label, and set up estate sale inventory
• Transport furniture from one job site to another
• Work with heavy equipment and machinery
• Focus on client relationship

Manufacturing Operator, GLOBALFOUNDRIES –Essex, Vermont Summer 2018
• Worked in a manufacturing position alongside coworkers to accomplish nightly goals
• Handled delicate multi-million dollar semiconductor wafers
• Operated tools specialized in creating semiconductor wafers
• Regarded as one of the most effective and efficient product runners

Intern, GLOBALFOUNDRIES – Essex, Vermont Winter 2016
• Worked alongside a Chemical Engineer in the Water Treatment Facility
• Performed tasks using Excel and PowerPoint
• Recorded data and input into daily reports

Waiter, Jericho Café and Tavern – Essex, Vermont Summer 2019
• Interacted with customers
• Handled money and sales transactions
• Answered phone calls
• Served food and drinks

Professional Attributes

• Proficient in Microsoft suite
• AutoCAD Experience
• Excellent communication and interpersonal abilities
• Strong work ethic
• Critical thinker and problem solver
• Strong collaborator
• Ability to work in a self-directed environment
• Creative and nimble in thought processes

Activities and Honors

• Deans list: 2013-2016
• Intramural Volleyball, Basketball, and Softball: 2016 - 2019
• Athletic Leadership Council: 2014 - 2016
• Volleyball State Champion: 2014 - 2016
• Lead as Captain for Basketball and Volleyball: 2016
• Volunteer at Hornet Hoop Camp teaching basketball to kids: 2014-2016
• Volunteer Coaching Kids Volleyball: 2014-2016
Keegan Mackin
921 Bath St., Ann Arbor, MI 48103 (734)-330-3855 mackink1@msu.edu

Education
Michigan State University, East Lansing, MI
Bachelor of Science, Biosystems Engineering Expected May 2020
- Ecosystems Engineering Concentration
Bachelor of Science, Integrative Biology Expected May 2020
- Evolution, Ecology, and Organismal Biology Concentration
- GPA 3.4

Experience
Niswander Environmental, Brighton, MI May 2019-Aug. 2019
Field Technician, Niswander Environmental
- Planted and seeded native wetland plants in wetland mitigation sites
- Stabilized banks for stream restoration to of a recently reconstructed stream
- Assisted with vegetation monitoring and identification for wetland health assessments
- Collected and assessed hydrology data of wetland mitigation sites
- Monitored and managed invasive species with pesticide application and manual labor

Michigan State University, East Lansing, MI May 2018-Aug. 2018
Field Technician, Rufus Isaacs Berry Crops Entomology Lab
- Assessed health and production of Michigan honey bee hives
- Evaluated health and species counts of Michigan bumble bees and native bees
- Administered polymer miticide experiment to test effective parasitic mite treatments for honey bees
- Surveyed species and quantity of foraging plants for bees

Michigan State University, East Lansing, MI March 2018-Dec. 2018
Lab Technician, Marjorie Weber Plant Biology Interactions Lab
- Pinned insects collected in the field
- Identified insects to study the herbivory of pokeweed
- Interpreted papers from scientific journals

Volunteer
Model solar car at MSU Engineering Design Day, East Lansing, MI Fall 2016
- Co-designed a model solar car that could travel in a straight track and pull 250 grams of weight
- Presented project to prospective engineering students and MSU faculty

Natural Area Preservation, Ann Arbor, MI 2012-2015
- Removed invasive species in natural areas

Honors / Awards
- J. K. Billman Annual Scholarship 2015-Present
- Dean’s List 2015-2016, 2018-2019

Skills
- Experienced in bacterial spread plating, PCR testing, and spectroscopy
- Proficient in maintaining a cell culture, Western Blot, and immunoprecipitation
- Licensed commercial pesticide applicator in Michigan
Devon Martin
300 Marlboro Ct., Apt 7, Tecumseh, MI 49286 517-662-0316 kazmie32@msu.edu

Education
Michigan State University (MSU), East Lansing, MI 48824
Bachelor of Science, Biosystems Engineering Expected May 2020
• GPA 3.27/4.00

Experience
Lab Assistant, Institute of Water Research, East Lansing, MI 48825 Oct. 2018-Present
• Organize and inventory project materials
• Assemble and solder circuit boards for water sensors
• Work with PI to improve sensor assembly process and design

Frozen Department Manager, Jerry’s Market, Tecumseh, MI 49286 May 2018-Aug. 2019
• Ordered and rotated product in the frozen and beverage departments
• Created sale advertisements and handled special orders of product
• Provided customer service

Research Assistant, Food & Health Lab, MSU, East Lansing, MI 48824 Dec. 2016-June 2017
• Produced chemical solvents and reagents for experiments
• Conducted independent experiments and data collection
• Compiled data from published literature on bio-proteins using Excel

• Provided customer service
• Stocked and managed produce daily
• Organized product inventory

Activities
Men’s Volleyball Club, MSU Sept. 2016-Present
• Serve as Secretary Sept. 2019-Present
• Served on Fundraising Committee May 2018-Sept. 2019

National Society of Leadership and Success, MSU Chapter April 2018-Present

• Recorded and distributed notes for students with approved visas
• Proctored exams
Education
Michigan State University Expected Graduation May of 2020
B.S. in Biosystems Engineering GPA: 3.46/4.00

Employment
MSU Dairy Plant | Production Assistant August 2019-Present
- Assist in preparing and packaging various dairy products
- Execute COP processes to maintain health and safety standards

Syngenta | Seed Production Research Intern June 2019-August 2019
- Assisted in coordinating an efficient system to manage collection and shipment of 2,400 trial samples
- Managed data collection for corn plot quality ratings and assessment of various pollination stages
- Contributed to data analysis by performing heat unit calculations for flowering trials
- Administered safety protocols and stewardship practices to team members

E & J Gallo Winery | Production Engineering Intern January 2018-June 2018
- Managed daily updates of product packaging specifications within an Excel database
- Designed and executed a trial to identify location of oxygen pickup throughout the production line
- Performed Root Cause Analysis and implemented countermeasures to reduce dissolved oxygen in wine
- Engineered raw data to support data analysis
- Exercised Continuous Improvement methods to streamline production

Wuskowahan Players Club | Waitress May 2016-August 2017
- Presented menus, making appropriate recommendations according to customer’s taste
- Attentive listening, multi-tasking, and memorization skills
- Maintained a clean work environment according to health standards

Volunteer/Activities
Spartans Rebuilding Michigan (SRM) Spring 2017-Present
- Actively participate in various philanthropy events in the Lansing area
- Attend meetings
- Contribute to fundraising events such as Klimb for Kids and Spartan Day of Service

Chaldean American Student Association (CASA) Fall 2018-Present
- Bring awareness to and raise money for the Chaldean community in Iraq
- Attend and participate in community service and social events

Lansing Garden House Spring 2017
- Assisted the head gardener in bed preparation, planting, harvesting, and maintenance
- Cooperated with other volunteers to perform assigned tasks efficiently
- Ability to properly handle plants and follow safe procedures when using tools

Read to Succeed Fall 2015-Fall 2017
- Formulated weekly lesson plans according to the students’ learning style
- Demonstrated patience and understanding when tutoring student
- Ensured that children are actively engaged in reading and writing
- Succeeded in helping students reach a higher reading level each semester

Skills/Achievements
- Proficient understanding of Microsoft applications, specifically Excel
- Knowledge and experience using Lean Practitioner manufacturing tools
Jillian Meade
meadejil@msu.edu • (616)446-9877
1256 Sibley Street, Lowell, MI 49331

Education
Michigan State University  East Lansing, MI  Expected May 2020
Bachelor of Science in Biosystems Engineering

Work Experience
PCI Pharma Services  Rockford, IL  May-July 2019
Validation Analyst Intern
❖ Organized data into a reference document to reduce initial testing for future product lines
❖ Analyzed data to formulate engineering studies and equipment assessments

Information Technology Empowerment Center  East Lansing, MI  Sept 2018-May 2019
Assistant Instructor
❖ Mentored middle school children in 2020 Girls while teaching drag-and-drop style coding
❖ Instructed middle school children in coding programs including Video Game Design and Lego Robotics

Aqua Clara International  Holland, MI  May-Dec 2018
Lab Intern
❖ Assembled and packaged PVC parts for six different styles of water filters
❖ Altered PVC fittings by using tools such as drills, thread cutters, and handmade devices

Student Athlete Support Services  East Lansing, MI  Sept 2017-May 2018
Tutor
❖ Guided athletes’ learning, one on one and in a group, in Intermediate Algebra, College Algebra, Quantitative Literacy, and Writing as Inquiry

Bernard’s Ace Hardware  Lowell, MI  Mar 2012-Aug 2018
Floor Associate
❖ Communicated ideas and solutions to customers and staff
❖ Learned how to use different tools in the store such as key cutting machines and colorant dispensers
❖ Mediated disagreements between customers

Other Experience
MSU Engineers Without Borders  Jan 2018-Present
Vice President
❖ Assist the president in decision making and organizing all events and projects
❖ Prepare and present all meetings for general members
❖ Assisted in writing technical reports for a rainwater catchment system on a roof in Tanzania
❖ Formerly acted as the Social Chair, creating fun collaborative events to improve teamwork

Professional Convention Management Association  Sept 2015-May 2016
Member
❖ Attended sessions and receptions at the PCMA 2016 Convening Leaders Conference
❖ Learned how to network with business professionals and gain knowledge of the industry
❖ Designed a system for participants to easily register for the Alzheimer’s walk in Lansing

Skills
❖ Proficient in Microsoft Word, MS Excel, MS PowerPoint, and MS Project
❖ Experience with AutoCAD, MATLAB, and VPython
Jessica Mehall
26682 Wallace Drive • Flat Rock, MI • 48134
CELL (734) 652-8816 • E-MAIL mehallj2@msu.edu

Education

**Michigan State University - East Lansing, MI**
- Major - Biosystems Engineering
- Minor - Food Processing and Technology
- Concentration in Food Engineering
- 3.1 GPA

Exp. Grad. Spring 2020

Technical Skills

- Proficient: Microsoft Office, MATLAB, AutoCAD
- Working Proficiency: Python

Certifications

- HACCP Basics for Processors and Manufacturers
- Implementing SQF Systems

Experience

**Food Safety and Quality Intern, Paramount Coffee Company**
- May 2019-present
  - Collected and analyzed samples to ensure food quality
  - Analyzed and trended data from monthly audits
  - Created and conducted trainings for 60 employees

**Biosystems & Agricultural Engineering Faculty Assistant**
- October 2017-January 2019
  - Analyzed solar energy data and used findings to write case studies
  - Compiled data into Excel and created visual representations

**Member of Phi Sigma Rho Engineering Sorority**
- September 2016-present
  - Current Status: Active Member
  - Current Position: Fundraising Chair
    - Organized fundraisers for the sorority
    - Collaborated with others to optimize attendance for events

**Izzone Section Leader**
- May 2018-present
  - Organized and oversaw a campout for 3,500 students
  - Interviewed applicants and selected new section leaders

**MSU Engineering Leadership Advantage Program**
- September 2017-present
  - Facilitator
    - Supervised a group of incoming freshmen
    - Led leadership activities and design competitions
  - Participant
    - Participated in leadership activities
    - Collaborated with a group to design and build a trebuchet
Nama Naseem
(248) 974-9360 | naseemna@msu.edu

Objective To obtain a full-time job in the biomedical/food industry as an engineering and biological science student.

Education
Michigan State University, East Lansing, MI Expected May 2020
Bachelor of Science (BS), Biosystems Engineering with a Biomedical Concentration
• GPA: 3.93
• Dean’s List

Internship Experience
Intarcia Therapeutics, Hayward, CA May 2019 – August 2019
Quality Engineering Intern – QA, Medical Device
• Investigated deviations by creating Corrective Action Preventive Actions (CAPA) related to drug/device combination product design and manufacturing for closure to occur ahead of deadlines
• Ensured that product related protocols/reports complied with existing SOPs and regulatory standards (ISO, CFR, and MDR) by understanding both documentation and standards to fulfill compliance ahead of FDA submission
• Established inspection levels for device packaging by utilizing AQL guidelines which determined level that expedited inspection process
• Handled findings of BSI audit by writing MDD to MDR transition plan with all non-conformances addressed before auditor deadline
• Conducted capability analysis via Minitab for device measurements determining that data could not be normalized and resulted in new testing

Additional Work Experience
MSU Food and Health Engineering Lab, East Lansing, MI July 2018 – Present
Undergraduate Research Assistant
• Utilizing extraction, liquid separation, and saponification techniques to quantify cholesterol oxidized products (COPs) from foods by GC-MS to find link between oxidation and neurodegenerative disorders
• Carried out individual project on fatty acid levels in meats manipulated by cooking methods to present fatty acid methyl esters (FAME) findings and display link between food processing and consumer health

MSU Engineering and Science Success Academy, East Lansing, MI July 2018 – August 2018
Biology Teaching Assistant
• Led recitation sessions for incoming first year students to understand content in a fast-paced course
• Collaborated with instructor to make the course informative and interactive by encouraging students to ask questions and work together

MSU College of Engineering, East Lansing, MI August 2017 – May 2018
CoRe Peer Leader
• Planned regular social, academic, and professional events to engage first year engineers with their new surroundings
• Conducted weekly meetings with 40 residents to create personal relationships
• Directed residents to campus resources that will lead to engineering success

Activities
PERIOD @MSU, East Lansing, MI August 2018 – Present
President and Founder of MSU chapter
• Collected and donated over 10,000 menstrual hygiene products to needy including refugees and families with hospitalized children
• Implemented initiative “Mission Menstruation” for free emergency menstrual hygiene products across campus, worked with administration to make several bathroom product dispensers free and offer free products at residential/academic building front desks
• Raised ~ $6,000 in first year as a club for product donations, club activities that promote period health, and campus initiatives

The State News Board of Directors, East Lansing, MI September 2016 – Present
Student Representative and Executive Board Secretary
• Contribute a student opinion, on a monthly basis, on making the State News more interesting and relevant for students
• Serve on committee that reviews scholarship applications for (10) $500 scholarships

Technical Skills
• Proficient: Microsoft Office, MATLAB, and Bentley GEOPAK/AutoCAD
• Intermediate: Minitab

Awards
The Family of James Laird Buchanan Endowed Scholarship recipient, Michigan State University, College of Engineering 2019-2020
Howard and Esther McColly Scholarship recipient, Michigan State University, Biosystems Engineering Department 2019-2020
F.W. Bakker-Arkema Endowed Scholarship recipient, Michigan State University, Biosystems Engineering Department 2018-2019
Objective
To apply my education and experience to obtain a full time position in the engineering field.

Education
Michigan State University; East Lansing, MI May 2020
- B.S. Biosystems Engineering; GPA 3.29/4.0
- Biomedical Concentration

Experience
MSU PIRE | Undergraduate Research Assistant | East Lansing, MI Jan. 2019-Present
- Research high school student attitudes towards science to improve learning
- Interact directly with participants traveling to cities throughout Michigan
- Input and analyze data with Microsoft Excel
- Explore the accuracy of data and eliminate errors to yield proper results

Dairy Queen | Manager | Milford, MI 2016-2019 (Seasonal)
- Demonstrated honesty and confidence with each shift of 3-4 employees
- Proactively minimized conflict and managed complications with professionalism
- Trained 3 employees and took initiative to improve the training process
- Motivated success and efficiency through transparent leadership and positivity

Animal Neurology & MRI Center | Career Mentorship | Commerce, MI May 2016
- Cared for and Monitored patients
- Learned and adapted quickly in a new and fast-paced environment

- Evaluated when and where to seat customers, prioritizing customer satisfaction
- Scheduled reservations and organized seating accounting for capacity and timing

Extracurricular
MSU Biosystems Engineering Club | Member | East Lansing, MI Aug. 2018-Present
- Engage with industry representatives, faculty and peers at biweekly meetings

Pi Beta Phi Fraternity | East Lansing, MI Jan. 2018-Jan. 2018
- Leadership Nomination Chair
  - Organize an application process for 12 leadership positions open to 150+ candidates
  - Interview applicants and assess their strengths and weakness to deliberate the best fit
- Academic Chair
  - Examined that members met their fraternity academic requirements
  - Designed methods and coordinated events such as incentives and personal tutoring
  - Improved overall chapter GPA by 0.07/4.0 compared to the previous year

Community Sharing Outreach Center | Volunteer | Highland, MI Jan. 2013-Present
- Tutor and mentor elementary students in English and math
- Collaborate with others to stock shelves, sort donations and evaluate clothing

Skills
- MATLAB, Spanish (conversational), Microsoft Office
Alexandrea M. Peake
peakeale@msu.edu (989)600-4720

Education
Michigan State University, East Lansing, MI
B.S. Biosystems Engineering Expected May 2020
  • Ecosystems Concentration
  • Environmental and Sustainability Studies Minor
  • GPA: 2.55/4.0

Experience
Research Technician May 2018-present
Berry Crops Entomology Lab, East Lansing, MI
  • Monitor and evaluate the health of native bee populations in Michigan
  • Collect, manage, organize, and input data
  • Collect and process various types of field samples

Research Assistant January 2019-May 2019
MSU-DOE Plant Research Laboratory (Kramer Lab), East Lansing, MI
  • Assembled and tested various electronic boards
  • Learned to accurately measure and identify various pieces used in electronic or mechanical assembly

Undergraduate Researcher May 2017-December 2017
Plant Biology Lab (Brudvig Lab), East Lansing, MI
  • Planned and organized a research project on evaluation of pollination within prairies
  • Wrote methods for and evaluate what site variables affect pollination in restorations
  • Presented a poster at the Ecological Society of America Annual Conference 2018 in New Orleans, LA

Skills
  • Certified with worker protection standard (WPS) training
  • Certified with chemical hygiene, laboratory safety, and hazardous waste training
  • Proficient with Microsoft Office and Excel
  • Experienced in ArcGIS
  • Experienced in AutoCAD
  • Experienced in programming languages Java, C++, and Visual Basic

Activities
Engineers for a Sustainable World (ESW) January 2018-Present
  • Project Leader designing solar-powered signs intended for educational purposes in pollinator plantings
  • Fundraising Coordinator (May 2019-Present)
  • Social Media Coordinator (September 2018-Present)
  • Attended the Engineers for a Sustainable World Annual Conference 2018; 2019

Sustainable Agricultural Engineering Design Lab (SAEDL) December 2018-May 2019
  • Helped design and build a practical chestnut harvester for small farms

Women in Engineering Connect Mentor September 2016-May 2019
  • Mentor to freshman engineering students
Sean Michael Pelfery  
11057 Jerryson Drive  
Grand Ledge, MI 48837  
(517) 881-6927  
pelferys@msu.edu

**Education**

| Michigan State University, East Lansing, MI | Bachelor of Science – Biosystems Engineering  
Expected graduation May 2020 |
|-------------------------------------------|---------------------------------------------|

<table>
<thead>
<tr>
<th>Grand Ledge High School, Grand Ledge, MI</th>
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**Experience**

<table>
<thead>
<tr>
<th>Clm Landscaping, Llc</th>
<th>Intern</th>
<th>East Lansing, MI</th>
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<tbody>
<tr>
<td>5/2018 to 8/2019</td>
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<tr>
<td>Assisted with landscaping design and installation.</td>
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<td>Managed various landscaping projects through completion.</td>
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<tr>
<td>Trained new landscaping staff.</td>
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<tr>
<td>Utilized strong time management, communication and interpersonal skills.</td>
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<table>
<thead>
<tr>
<th>Pro-Mec Engineering Services, Inc.</th>
<th>Intern</th>
<th>Grand Ledge, MI</th>
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<tbody>
<tr>
<td>5/2017 to 12/2017</td>
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<tr>
<td>Assisted with the implementation, testing, and verification of HVAC systems for multiple customers.</td>
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<tr>
<td>Coordinated and completed start-up tasks prior to performing field services.</td>
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<tr>
<td>Communicated information and feedback relating to field start-up and services to co-workers, management, partners, and customers.</td>
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<tr>
<td>Job shadowed field service technicians to develop expertise with discovering and addressing new and challenging issues.</td>
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<table>
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<tr>
<th>Wayback Burgers</th>
<th>Crew Member</th>
<th>Lansing, MI</th>
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</thead>
<tbody>
<tr>
<td>6/2016 to 8/2016</td>
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<tr>
<td>Provided customer service and strengthened organizational and time management skills.</td>
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<tr>
<td>Promoted a collaborative team environment with co-workers and customers.</td>
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<tr>
<td>Developed leadership skills by training new crew members and helping coordinate nightly closing activities.</td>
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</table>

**Awards**

2017 National Club Football Association (NCFA), All American Team, STEM Scholarship Recipient

**Activities**

2016 – 2017 Michigan State University Club Football Team

**Skills**

Proficient in Microsoft Outlook, Word, Excel, and PowerPoint; SolidWorks; AutoCAD

**Related Courses**

Experienced in a lab setting, five total courses of Chemistry and Biology labs
Taylor Pelland
220 Gunson St., East Lansing, MI 48823 • 734-812-3487 • pellandt@msu.edu

Education
Michigan State University, East Lansing, MI
- Bachelor of Science-Biosystems Engineering
  - Ecosystems Concentration
- Environmental and Sustainability Studies Minor

Corvinus University, Budapest, Hungary
- Study Abroad, MSU credit

Experience
RHS Michigan State University, East Lansing, MI
Service Center Representative
- Assist residents with any questions or concerns
- Perform tasks and safety procedures to ensure dorm building runs efficiently and is organized

Ecosystems Planning and Restoration, Raleigh, NC
Environmental Intern
- Assisted on stream and wetland restoration projects including research, design, surveying and implementation
- Designed plans for streams in CADD specifically with Bentley Power GeoPak, some work in ArcGIS
- Conducted research to improve Stream Quantification Tool, specifically for North Carolina
- Modeled and interpreted progress of stream restoration efforts through RiverMorph

EnviroSolutions Inc., Westland, MI
Field Technician
- Organized and analyzed data with spreadsheets done mainly in Excel to draw solutions to projects
- Collected data through soil, groundwater, and air quality sampling to analyze presence/extent of contaminants
- Projects included wetland restoration and implementing groundwater remediation systems

Urban Outfitters, East Lansing/Ann Arbor, MI
Sales Associate
- Helped customers while maintaining excellent customer service
- Maintained a clean and organized store

Family Dental, Plymouth, MI
Dental Assistant/Receptionist
- Assisted Dentist with patients and procedures
- Handled payments, scheduled appointments, and oversaw day to day operations

Technical and Language Skills
Computer Software
- AutoCad, RiverMorph, MS Office (Excel, Word, Powerpoint, Outlook)
Spanish
- Basic understanding and speaking

Activities and Interests
Engineers Without Borders, MSU, East Lansing, MI
- Learn about a future as an engineer, various activities realistic to problems solved by professions, community service

Spartans Rebuilding Michigan, MSU, East Lansing, MI
- Local community service events
- Social gatherings with members

Spartan Ski Club, MSU, East Lansing, MI
- Skiing and snowboarding social club

28
Emily Peruski
perusk11@msu.edu | (989)-395-4586 | www.linkedin.com/in/emily-peruski/

Education

**Michigan State University** | East Lansing, MI
- B.S. in Biosystems Engineering (Expected May 2020)
- GPA: 2.93/4.00

Work Experience

**Michigan State University** | East Lansing, MI | (Sep. 2019 - present)
**Undergraduate Research Assistant**
- Work under Dr. Cetin (Civil & Environmental Engineering) to diversify potential sources of demand response to provide ancillary and capacity services
- Collect and analyze data identifying targeted load characterization

**Energy Operations Market Intern**
- Verified daily information representing generation and load in wholesale markets
- Performed an analysis on supplemental services that pushed the agency to pursue potential revenues
- Assisted staff in the development of a decision support system for running an electric generator

**Bayer Crop Science** | Kihei, HI | (May - Aug. 2018)
**Plant Breeding Intern**
- Led experiments to optimize greenhouse space and observe pollen movement in screen houses
- Measured the effectiveness of various fertilizer treatments
- Created a planting plan for Bayer Maui’s Pollinator Habitat, consisting of native Hawaiian plant species
- Projected an increased plant-holding capacity of 30% in the shade houses through experimentation

**DTE Energy - Electric** | Ann Arbor, MI | (Jan. - May 2018)
**Market Engineering Co-Op**
- Analyzed daily performances, profits, and losses of DTE’s power plants in the MISO Energy market
- Performed studies to predict the economic impact of future market moves and power plant decisions
- Developed and enhanced tools to create price forecasts or analyze the accuracy of DTE’s past forecasts
- Forecasted potential savings of $80K for the company through plant performance studies

Technical Skills

Microsoft Office (Outlook, Word, Excel, PowerPoint) | SQL | R | AutoCAD | MatLab | LabView

Extracurricular Activities

**Advancing Women in Energy** | Lansing, MI | (2019 - present)
- Connect and collaborate with other women in the energy industry throughout Michigan
- Attend seminars covering the future of resources, policies, and practices related to energy

**Engineers for a Sustainable World, MSU** | East Lansing, MI | (2018 - present)
- Identify and pursue local projects involving environmental and sustainability issues
- Increase sustainability efforts on MSU’s campus
Scott Piper
(630) 544-9796 | pipersc1@msu.edu | 140 Center Street, East Lansing, MI 48823

Education

Bachelor of Science, Biosystems Engineering (Biomedical Concentration) Expected May 2020
Michigan State University (MSU), College of Engineering/Honors College; East Lansing, MI
• Cumulative GPA: 4.0/4.0

Experience

Division 1 Student Athlete August 2016 – Present
MSU Varsity Swim Team; East Lansing, MI
• Lead team to nation’s highest swim team GPA of 3.72 by mentoring younger teammates on study strategies
• Achieve perfect GPA by implementing time management plans to balance rigorous training and academics
• Slash time in the 200 L.M. by 7 seconds by breaking a large goal into daily checkpoints to qualify for the U.S. Olympic Trials

Undergraduate Research Assistant July 2018 – Present
Hardy Lab; IQ Building, East Lansing, MI
• Master areas with little initial knowledge by self-motivating to research background material and gain competency
• Design and run experiments investigating maternal immune activation, autism, and placental brain chemistry
• Unite findings from a collaborative team to draw conclusions and teach new skills and ideas

Engineering Intern May 2019 – July 2019
Orchid Orthopedic Solutions; Holt, MI
• Validated electropolishing system by creating a DOE to revamp protocol and minimize operation costs
• Upgraded archive system by constructing file naming system to increase data control accessibility

Study Abroad Summer 2018
Summer Sports Program Down Under; Australia and New Zealand
• Immersed in a new culture to reflect on American society by connecting with professionals from another country
• Developed independence and confidence in new situations by being open-minded and receptive to help to gain comfort

Lifeguard June 2013 – August 2017
Naper Carriage Hill Swim and Racquet Club; Naperville, IL
• Fulfilled customer demands of safety and sanitation by being proactive and an attentive listener

Organizations & Leadership

Vice President January 2017 – Present
Student Athlete Advisory Committee (SAAC); East Lansing, MI
• Represent the men’s swim team by being the voice of 30+ other athletes to mitigate team concerns
• Boost image and involvement of student athletes by managing outreach events such as school reading visits

General Assembly (Student Body Government) August 2019 – Present
Associated Students of MSU (ASMSU); East Lansing, MI
• Advocate policy for all student athletes as the first ever SAAC representative on ASMSU
• Communicate with a broad range of students and faculty to reach solutions on university wide issues

Awards & Skills

• Computer Programs: Excel, AutoCAD, MATLAB, Word, PowerPoint
• Big Ten Distinguished Scholar, Dean’s List, MSU Scholar Athlete Award All Eligible Semesters
• Honors College Dean’s Ambassador 2018-Present
• CoSIDA Academic All-American First Team Spring 2019
• MSU Community Service Student Athlete of the Month Spring 2019
• Three time MSU Varsity Record Holder Spring 2019
• MSU Swimmer of the Year Spring 2017/Spring 2019
• Tom & Cathy Luccock Men’s Swimming Scholarship for Moral Character Spring 2017
Taylor J. Quillan

4835 Country Way E, Apt 501  (616) 826-4873  quillant@msu.edu
Okemos, MI 48864

Education

Michigan State University, East Lansing, MI
• Bachelor of Sciences, Biosystems Engineering  Expected May 2020
• GPA: 3.04
Greenville High School, Greenville, MI  May 2015
• GPA: 4.06

Experience

USDA-ARS ADOL, East Lansing, MI  June 2019 – Present
Administrative Assistant
• Assist in administrative and front desk duties
• Organize and dispose important and confidential files, records, and research documents
• Inventory computers in the facility for maintenance purposes
• Manage and file paperwork for upcycling unused laboratory equipment and computers

Michigan Science Olympiad, East Lansing, MI  March 2016 – Present
Site Coordinator
• Communicate information to supervisors about the tournament
• Update and manage the tournament website
• Purchase and organize necessary supplies for the events
• Deliver lunches to volunteers and supervisors
• Resolve any problems that occur at events during the tournament
• Organize and present informational meetings to coaches and supervisors

Extracurricular
• Spartan Science Olympiad Club Activities Director: Volunteered at local Science Olympiad tournaments to improve K-12 science and technology education
• MSU Smash 4 Club Vice President: Organized and ran 100+ person events, collected money during registration and lunch, handled club data keeping
• Race Volunteer: Assisted at various triathlons and cycling events to support athletes during and after the race

Skills
• Proficient with using Word, Excel, SolidWorks, MATLAB, AutoCAD, and NX
• Open-minded and quick to learn new tasks and technologies
• Strong communication skills and high level of comfort in group settings
• Diligent in staying on task and working through complicated problems
• Responsible and committed to the success of the team
Anna Raschke
+1 (734) 730 0482 / raschkea@msu.edu
2765 Lowell Rd Ann Arbor, MI USA 48103

Education

Michigan State University East Lansing, MI
- B.S., Biosystems Engineering
- Honors College Member
- 3.915/4.0 GPA, Deans List 6/6 semesters

Work Experience

Undergraduate Research Assistant – East Lansing, MI
- Sep 2017 – Present
  - Performed water audits on three Michigan food processing facilities and developed reports with suggestions for improving their water use efficiency.
  - Developed fermenting box to efficiently ferment excess and undesirable produce from farmers to reduce waste.
  - Collected data involving effluent and mineral levels to determine effects of wastewater irrigation on groundwater.

Sustainability and R&D Intern, Viessmann – Allendorf, Germany
- May 2019 – July 2019
  - Worked on a team to help develop regulatory documents on the handling of dangerous goods.
  - Wrote a series of articles on how to be sustainable in day to day life, distributed to all Viessmann employees.
  - Worked on a team to help initiate the implementation of a new quality management system.

Sustainability Intern, Oshkosh Corporation – Oshkosh, WI
- May 2018 – Aug 2018
  - Developed methodology for expanding greenhouse gas emission reporting to cover all applicable categories.
  - Directed sustainability videos to increase awareness of the sustainability efforts at Oshkosh Corporation.
  - Worked with many teams to decrease waste and increase awareness of sustainability throughout the corporation.

Production Assistant, MSU Dairy Plant – East Lansing, MI
- Nov 2016 – May 2017
  - Performed routine sanitation procedures on production areas to ensure the highest quality products.
  - Assisted in product packaging while maintaining a safe and friendly environment.

Production Assistant, Milchhof Diers – Oldenburg, Germany
- Jan 2016 – June 2016
  - Set up production machinery and performed maintenance throughout the factory during breakdowns.
  - Tested production temperature to ensure customer satisfaction for new products.
  - Performed routine sanitation procedures on production area and delivery vans.

Leadership Experience

Engineers Without Borders – Treasurer
- Sep 2017 – Present
  - Collaborated with a team of professional and students to test effectiveness of composting latrines in El Salvador.
  - Organized and recorded all the money transactions from travel and club activities.

MSU Triathlon Club – President
- Sep 2016 – May 2019
  - Co-presenter at Pickle Packers International Conference March 2019

Awards

Howard & Esther McColly Scholarship
- Recipient April 2019

2018 ESPP Research Conference Poster Session Winner
- November 2018

B.W. Brown Scholarship
- Recipient June 2018

F.W. Bakker-Arkema Endowed Scholarship
- Recipient April 2018

Clarence and Thelma Hansen Scholarship
- Recipient April 2017

Yoshimori Award Winner
- March 2017
  - Directed and edited an educational movie showing the detrimental effects of one-use plastic water bottles on the environment as well as the positives of modern recycling methods.

MSU Sustainability Competition Second Place Winner
- Feb 2017

Green Germany Third Year Competition Winner
- Nov 2016

Skills

German (fluent)

Microsoft Office (Proficient)

MATLAB (Proficient)

AutoCAD (Competent)
Courteney Roberts

1551 Greenwich Drive, Troy, MI 48098 | (330)-714-3299 | rober973@msu.edu

Education

Michigan State University | Expected May 2020
- Bachelor of Science Biosystems Engineering
- Biomedical Concentration
- GPA: 3.14

Experience

Undergraduate Teaching Fellow | Michigan State University | Aug 2019 – Present
- Assisted the professor in observing, creating lesson plans, assessing, and helping freshman students with class material and homework
- Mentored students outside of class by holding office hours and conducting study sessions before exams
- Aided students in understanding the material by communicating in a way that they understood.

Commercialized Product Development Co-Op | DePuy Synthes | Jan 2018 – Aug 2019
- Utilized computer programs such as NX, CAD, ADAPTIV, etc. to update product drawings and search company documents
- Assisted in the development and execution of protocols, drawing updates, risk management documents etc. Also, initiated and led multiple projects and meetings.
- Investigated and analyzed multiple knee and hip implants as well as instrument complaints from surgeons

Biosystems Engineering Intern | Michigan State University | May 2017 – Dec 2017
- Headed creative design, building, and implementation for prominent solar powered drip irrigation system at the student organic farm
- Researched, updated, and installed electrical soil sensors that monitor the temperature and moisture of the soil and verify the data produced are at optimal values for vegetable growth
- Developed electrical skills working with the solar panels, mechanical skills by building a pump and troubleshoot any problems that came up. Authored a report for the ASABE national conference.

Research Assistant | MSU College of Osteopathic Medicine | Nov 2016 – May 2017
- Analyzed and input data for the research conducted by the College of Osteopathic Medicine
- General project management support while also organizing and managing references
- Created data and graphs that were presented at the regional and national conference

Extracurricular Activities

National Society Of Black Engineers | Sept 2015 - Present
- Telecommunications chair – Maintained website, updated social media, kept members informed
- Programs chair – Planned and implemented social and academic programs for NSBE’s local chapter
- Engineering Council Rep – Attended engineering student council meetings on NSBE’s behalf, able to vote on national NSBE issues
- Membership Chair – Responsible for ensuring submission of membership forms, applications, and dues.

Alpha Phi Alpha Fashion Show | Jan 2019 – May 2019
- Attended daily practices and helped coordinate choreography for the annual fashion show. (15 hr/wk)
Sydney Shellhouse

15264 Eyre Circle, Plainfield, IL 60544 | (C) 815-514-0229 | shellho2@msu.edu

Education
Michigan State University, East Lansing, MI
Bachelor of Science: Biosystems Engineering Expected May 2020
• 3.8 GPA

Experience
• Launched a new product by working with the team to develop and execute a launch plan
• Expanded Evoqua’s dewatering portfolio
• Developed a plan to reduce the cost of a product by $300,000 with team communication to generate 13 feasible action items, allowing for competition in the mining market.

Production Engineering Intern | E. & J. Gallo Winery, Modesto, CA Jan. 2017 - June 2018
• Troubleshoot line mechanical failures using problem solving skills to increase output
• Reduced downtime of Capper by using data analysis and team communication to discover and solve the fault causing the equipment failure which increased line efficiency
• Worked with a team to improve consistency of controls between equipment centers
• Reduced time required for changeover and reduced maintenance intervention

Team Member | Costa Rica Study Abroad, San Jose, Costa Rica Dec. 2017 - Jan. 2018
• Worked with a team of nine to design and build a prototype generator using solar power and biogas
• Implemented design in ecosystems similar to that of Costa Rica

Design Team Member | Engineers Without Borders, East Lansing, MI Jan. 2016 - Dec. 2017
• Worked with a team to design a water collection, filtration, and storage system
• Implemented system summer 2017 for a school in Tanzania
• Gathered required information for citizens regarding the operation and use of the system
• Adhered to constraints that can be implemented by MSU students

Teachers Assistant | Engineering Teaching Fellows, East Lansing MI Sept. 2018 - Dec. 2018
• Led students during class by collaborating with the professor to help structure lesson to ensure understanding of the Biosystems Engineering material
• Prearranged office hours to provide further assistance outside of class

Crew Member/ Trainer | Chipotle, East Lansing, MI June 2016 - Jan. 2019
• Worked with customers and staff to ensure the store ran smoothly by following specific protocols
• Trained seven new hires using various training methods to communicate effectively with customers while efficiently filling orders

Activities
• Society of Women Engineers – Mentor incoming engineering students Sept. 2015 - May 2018
• Engineers Without Borders – Led multiple fundraising events Jan. 2016 - Feb. 2019
• Spartan 300 Weightlifting Club Oct. 2015 - Current
• After School Tutor – Taught math and science to groups of students Sep. 2018 - Dec. 2018
• Design Day – Presented water filtration system Nov. 2015

Skills
• Proficient in Microsoft Word, PowerPoint, Excel, and Matlab
• Lean Certified
• LEED Training
Aryn Thomas
9301 Gale Road, White Lake, MI 48386 | 248.421.9556 | thom1291@msu.edu

Education
Michigan State University, East Lansing MI
• Bachelor of Science, Biosystems Engineering
• Cumulative GPA: 3.94

Experience
MSU Biosystems Engineering Department | Research Assistant | East Lansing, MI | Nov 2016 – Present
• Organize and conduct data analysis on solar energy systems, energy efficiency studies and energy audits
• Prepare and submit grant proposals for energy focused engineering projects
• Conduct oral and poster presentations to both researchers and stakeholders in various forums
Kellogg Company | Manufacturing Engineering Intern | Wyoming, MI | May 2019 – Aug 2019
• Designed and implemented a comprehensive energy program utilizing an energy usage tracker to provide a transparent and granular approach to monitoring energy consumption
• Developed a holistic and innovative solution to combustible dust challenges resulting in decreased maintenance costs and an improved work environment
• Presented with Intern Spotlight Award for demonstrating passion
Kellogg Company | Global Engineering Intern | Battle Creek, MI | May 2018 – Nov 2018
• Designed and prepared implementation of a water recycling system to reduce water usage at manufacturing plants
• Identified alternative ingredient cooling methods, coordinated with vendors and performed risk and cost analyses resulting in hazard mitigation and decreased plant downtime
• Presented with Intern Spotlight Award for demonstrating the humility and hunger to learn
DTE Energy | Generation Optimization Market Engineer Co-Op | Ann Arbor, MI | Jan 2018 – May 2018
• Analyzed daily power plant profit and loss data and reported summaries to plant liaisons
• Utilized MS Excel to extract and analyze data for special studies which resulted in $60,500 in PSCR savings
• Created automated analysis tools in MS Excel using VBA and PI Data Link to streamline processes
• Identified revenue leakage from power plant operations and brainstormed solutions with proof of concept
Engineering Society of Detroit & DTE Energy | Project Manager | Webberville, MI | Sept 2017 – Nov 2018
• Managed multidisciplinary engineering team to design and install new automated lighting technology at MI farm
• Developed project timeline, managed budget and facilitated communication between stakeholders
• Supervised data collection and analysis to evaluate system performance and optimize energy usage

Leadership
MSU Biosystems Engineering Department | Teaching Assistant | East Lansing, MI | Jan 2019 – Present
• BE 456: Electric Power and Control | Spring 2019, BE 351: Thermodynamics for Bio Engineering | Fall 2019, BE 334: Biosystems Engineering Lab | Fall 2019
Phi Sigma Rho Engineering Sorority | Vice President of Finance | Jan 2017 – Jan 2018
• Created and maintained budget for sorority of 100+ women, collected funds and submitted external payments
• Served on executive board to lead and set an example for women in both social and professional settings

Publications
Tyler W. VanBuren
517-719-8542 | vanbur28@msu.edu

Education
Michigan State University (MSU); East Lansing, MI
Master of Science, Biomedical Engineering Expected May 2021
Bachelor of Science, Biosystems Engineering Expected May 2020
Lansing Community College
Associates of Science Graduated 2017

Experience
Student Research Assistant; Dr. Galit Pelled; East Lansing, MI May 2018 - Present
• Research phantom limb syndrome
• Robotic prosthetic control based on octopus peripheral nervous system
• Develop Magnetic Coils for protein activation research
Certified Nursing Asst; Ingham Cnty Medical Care Facility, Okemos, MI Dec. 2018 - Present
• Provide care for 9 residents and assist with 27 residents
• Complete courses on Ethics and Patient Care
Resident Manager; DTN Management Company, East Lansing, MI Aug. 2018 - Present
• Provided security and oversight for property maintenance and clean up
STARX President; MSU, East Lansing MI Aug. 2017 - Present
• Design and fabricate a strength augmenting exoskeleton for service workers
• Organize a team of 60+ members
Certified Nursing Asst; Eaton Cnty Health & Rehab Ser., Charlotte, MI Feb. 2016 - Feb. 2019
• Promoted to Patient Care Technician from Certified Nursing Assistant
• Provided daily care of 7 residents; assisted with 26 other patients
Home Health Care Asst; Optimal Home Health Care, Lansing, MI Dec. 2013 - June 2014
• Interacted with patients by assisting with rehabilitation and daily life activities
• Documented detailed reports for reimbursements to insurance companies
• Tailored treatments to patients was performed to provide quality and comfort while healing

Extracurricular Activities
Resident Assistant Volunteer | Origami Rehabilitation Center September 2017 - Present
MSU M.E.D.L.I.F.E. Chapter Fundraising Chair September 2018 – Present
Mortar Board Honor Society Member Outreach Chair May 2019 - Present
MSU Science Fair Volunteering
Dominican Republic Study Abroad | MSU March 4 - 10 2018
MSU URAAF Research Presentation 2019
Biomedical Engineering Society Research Presentation October 2018

Grants and Scholarships Awarded
• $5,000 ENSURE Summer Research Fellowship Summer Semester 2019
• $3,000 Cornelius Fellowship Grant from Biomedical Engineering Department at Michigan State University; applied towards MSU Study Abroad to Dominican Republic March 2018
• $3,000 Clarence & Thelma Hansen Scholarship; applied towards 2018-2019 Year
• $500 College of Agriculture & Natural Resources scholarship applied towards MSU Study Abroad program during March 2018
• $21,900 Obtained for STARX Project funding 2017-2019
Christopher L. Wells  
2379 West Price Rd., Saint Johns, MI  48879  
989.640.9434  
wellsch7@msu.edu

Education
Michigan State University: East Lansing, MI  
• B.S. in Biosystems Engineering  
• GPA  3.24/4.0  
• Dean's List Fall 2015; Spring 2016  
• Honors College

Work Experience
Water Resources Intern Engineer: Spicer Group Inc., St. Johns, MI  
May 2019-present  
• Conduct introductory H&H and 14A calculations  
• Design a variety of watershed maps using ArcPro  
• Field check watershed boundaries and visit project construction sites

Undergraduate Research Assistant: Biosystems Engineering, MSU, East Lansing, MI  
July 2015-present  
• Design experiments and report experimental results  
• Evaluated physical characteristics of fresh blueberries treated with x-ray irradiation  
• Conducted benchtop and pilot scale replication of industry dry cleaning operations  
• Presented at University Undergraduate Research and Arts Forum 2017; awarded category 1st prize  
• Participated in Engineering Summer Undergraduate Research Experience (EnSURE) 2016

Undergraduate Research Assistant: Horticulture, MSU, East Lansing, MI  
Summer 2018  
• Collaborated on fumigation and x-ray treatment of maggot infested blueberries  
• Assisted graduate student on an apple maturity study

Activities
International Association for Food Protection  
Summer 2017 & 2019  
• Poster presentation (2017): “Evaluating Current Industry Dry Cleaning Practice Using Vacuum with Regard to Food Allergens on Processing Surfaces”  
• Poster presentation (2019): “Effects of X-ray Irradiation on Pathogen Contamination and Quality Aspects of Fresh Blueberries”

MSU Relay  
• Mentorship Executive  
• Team Development Executive  
2017  
2016

MSU Honors College Impact Program  
Summer 2017  
• Served as a student mentor during a week of service learning

Skills & Certifications
Microsoft Office  
• Many years of experience in personal, school, and work areas

AutoCad  
• Created a “Site Plan” final project

ArcGIS  
• Analyzed land usage in Manistee and Saginaw watersheds for class projects

OHSA 10  
• Completed online training for Spicer Group construction projects

Honors and Awards
MSU Promise Endowed Scholarship  
Spring 2015

MSU Biosystems Department Scholarship  
Spring 2015
Objective
To obtain a full-time position in 2020 in an engineering/technological field

Education
Michigan State University (MSU), East Lansing, MI
B.S. in Biological Systems Engineering Expected May 2020
• GPA: 3.85 / 4.0
• Dean’s List all semesters

Experience
Lear Corporation, Detroit, MI May 2019 - August 2019
Engineering Innovation Intern
• Competed and pitched innovative business opportunities in Lear Innovation Challenge to a distinguished employee panel
• Served on a multi-disciplinary team tasked with innovating on Lear’s electrical and seating systems technology according to growing vehicle trends
• Engineered and designed a new product (Invention Disclosure #20153D) that reduces the risk of motion sickness for vehicle passengers
• Mechanically constructed and programmed software for new product proof of concept
• Developed and presented 2 business models for product implementation to Lear executives and CTO

MSU, East Lansing, MI May 2018 - Present
Undergraduate Research Assistant
• Conducted experiments and analyzed data corresponding to the chemical composition of biosolids to characterize the energy potential
• Collaborated with team members to assemble a pilot scale constructed wetland for winery wastewater
• Presented a research poster (“Analysis of the Properties of Dried Biosolids Under Thermal Conversion”) at the Mid-Michigan Symposium for Undergraduate Research Experiences, July 2018

Hansons Running Shop, Grosse Pointe Woods, MI May 2017 - January 2018
Salesperson
• Analyzed biological components of gait using a pressure sensor and high-speed camera 10/day
• Accommodated customers daily with insight on various running equipment according to physical needs

Extracurricular Activities
MSU Biosystems Engineering Club, Treasurer and BAE Representative September 2017 - Present
MSU Running Club, Treasurer September 2016 - Present

Technical Skills
Laboratory skills
• Soldering
• Certified and trained in proper autoclave procedure
• pH monitor use

Software skills
• AutoCAD basic functions
• MATLAB and Arduino programming knowledge

Awards
• Lear Innovation Challenge Coaches Award 2019
• William C. Ford, Jr. Scholarship 2017
Brandon Wilsdon
1206 Lang Drive
Howell, MI 48855
517-294-8603

Education
Michigan State University (MSU), East Lansing, MI August 2015 - Present
• Bachelor of Science Biosystems Engineering Expected May 2020
• Forestry Minor
• GPA 3.0/4.0

Byron Area Schools, Byron, MI June 2015
• Awarded Academic Excellence Award 2011-2014
• 7th in Class with 3.89 GPA

Experience
Commercial Building Maintenance, CBM, Ann Arbor, Mi 2011 - Present
• Clean and perform custodial work
• Supervise Part-Time Personal
• Secretary/Payroll Part-Time

Residence and Hospitality Services,
MSU, East Lansing, MI June 2018- August 2018
• Cleaned university dormitories
• Prepared university dormitories for students

Activities
Byron Area Schools, Byron, MI 2015
• State FFA Degree
• Chess Club State Championship 2012
Objective
To obtain a summer 2020 internship or co-op in an engineering related field.

Education
Michigan State University (MSU), East Lansing, MI August 2016-Present
- Bachelor of Science, Biosystems Engineering Expected May 2020
  - BS/MS Linked Program Expected May 2021
- Bioenergy and Bioproduct Engineering Concentration
- GPA: 3.61
- Dean’s List: 5 semesters; Academic Scholars Program

Grandville Calvin Christian High School, Grandville, MI June 2016

Professional Experience
Research Assistant, Michigan State University, East Lansing, MI September 2018-Present
- Research alternatives for clean, efficient, long term energy storage
- Collect data for different polymerization and energy storage projects
- Manage dangerous chemicals while conducting experiments
- Use hydrolysis and NMR Spectroscopy to determine test results

Production Engineering Intern, BPV Environmental, Byron Center, MI May 2019-August 2019
- Participated in managing the addition and automation of a new production line
- Updated and implemented new standard operating procedures and work instructions
- Worked on various environmental health and safety projects
- Advised on different facility and process upgrades using engineering techniques
- Managed, researched, and advised on multiple projects

Server, Cook, and Trainer, Red Robin, Grandville and Lansing, MI June 2015-August 2019
- Work in a high stress environment managing tables and providing quality customer service
- Manage food quality following all restaurant regulations
- Train other employees in different areas of the restaurant business

Activities
MSU BE Club, East Lansing, MI September 2018-Present
MSU Rugby Club, East Lansing, MI August 2016-Present
Orchestra, Grandville Calvin Christian High School, Grandville, MI August 2012-June 2016
- First Chair Double Base August 2014-June 2016

Skills
English (native), Spanish (beginner)
Proficient in Microsoft Office programs and AutoCAD
Resume Book
Fall 2019

Expected December 2020 Graduates
Meredith Freeby

**Current Address**
2700 Hannah Blvd., Apt. 2635
East Lansing, MI 48823
freebyme@msu.edu

**Permanent Address**
4833 W Nurnberg Road
Free Soil, MI 49411

**Education:**

**Michigan State University** | East Lansing, MI
---|---
August 2017 – December 2020
- Bachelor of Science in Biosystems Engineering
- American Indian and Indigenous Studies Minor

**Natural Science in New Zealand** | Study Abroad Program
December 2017 – January 2018
- Researched biodynamic farming for final paper titled: An Analysis of Biodynamic Farming as a Solution to Agricultural Issues
- Collected and analyzed data on variations in plant diversity relative to distance from the shoreline, discussed and debated topics including ecotourism, evolution, climate change, and natural selection

**Purdue University** | West Lafayette, IN
August 2016 – May 2017
- Trustees Scholar Award Recipient: Top Purdue Merit based scholarship, awarded to approximately 100 recipients annually

**Work Experience:**

**Spicer Group** | Engineering Intern | St. Johns, MI
May 2019 – Present
- Prepared and calibrated equipment (bottles, HydroLab Quanta, Teledyne ISCO autosamplers) for water and sediment sampling events in order to conduct high quality sampling efficiently across the State of Michigan
- Statistically analyzed water quality data in order to generate summary charts and statements to effectively and clearly communicate results with clients
- Completed L-THIA Modeling to calculate pollutant loading in watersheds
- Utilized ArcGIS software to assess storm structure stability and to code for defects
- Perform Soil Erosion and Sediment Control (SESC) Inspections on commercial and residential construction sites

**Hobby Crest Resort** | Assistant Manager/Administrative Assistant | Ludington, MI
May 2018 – August 2018
- Assisted resort owners in launching and running a newly renovated lakefront resort, most notably in the following areas:
  - **Customer Service:** Advised customers during check-in/check-out and during their stay if inquiries arose thus generating improved customer satisfaction: raised TripAdvisor rating 63%
  - **Finance:** Consolidated ten months of invoice data, entered into Excel, summarized findings by month and commodity
  - **Marketing:** Planned website layout, created website text, photographed local attractions to highlight on website and managed Instagram account, tripling Instagram following
  - **Operations:** Managed cottage inventories, maintained resort grounds, and cleaned cottages

**Huron-Manistee National Forests** | Volunteer | Manistee, MI
May 2017 – August 2017
- Volunteered rotationally with Timber, Recreation and Forestry Crews to discover how the U.S. Forest Service functions
- Developed communication skills by assisting visitors with directions to local attractions as well as the purchase of Senior Park Passes
- Other tasks included tree surveys to enhance existing LiDAR data set, as well as maintenance of recreational facilities

**Extracurricular Activities:**

**Engineers for a Sustainable World (ESW)** | East Lansing, MI
September 2018 – Present
- Green Alliance Chair: Facilitated coordination of projects between ESW and Green Alliance

**Michigan State University Outdoors Club** | East Lansing, MI
September 2017 – Present

**Purdue All-American Marching Band** | West Lafayette, IN
August 2016 – December 2016

**Skills and Certifications:**
- CPR, MATLAB, Microsoft Office, OSHA (10 hour Construction Safety and Health), Teledyne ISCO and HydroLab Quanta equipment management, SESC Plan Review and Design, Social Media, Storm Water Management Operator
Resume Book
Fall 2019

Expected 2021 Graduates
Objective
To obtain an internship for the summer of 2020 to develop competence in the biomedical field.

Education
Michigan State University, East Lansing MI May 2022
- Bachelor of Science Biosystems Engineering
- Biomedical Concentration; Spanish Minor
- GPA 3.97
- Honors College; Lyman Briggs College

Experience
Lab Technician, MSU Lowry Lab, East Lansing, MI Aug. 2019 - Present
- Collaborate with Post doc to design an experiment to see how different hormones affect growth and morphology of mimulus guttatus
- Practice problem solving through refining the design to complete experiment
- Use PCR, CRISPR and other tools to process data from mimulus guttatus

Field Technician, MSU Lowry Lab, Hickory Corners, MI June 2019 – Aug. 2019
- Collect switchgrass samples based on project specifications to study the plant to see if it could be used to produce energy
- Manage data and ensure accurate measurements in Excel to send to project leaders
- Maintain switchgrass fields

Undergraduate Learning Assistant, MSU, East Lansing, MI Aug. 2018 – May 2019
- Procter quizzes, hold office hours and guide through worksheets in recitation once a week to ensure student success
- Prepare to lead recitation every week by grading papers, reviewing topics and deepening knowledge to be the best help to students possible
- Develop lesson plans with examples and other tools to aid in learning

- Cooperate with coworkers to get work done quickly and ensure customer satisfaction
- Kept clean and organized kitchen to comply with health codes and optimize speed of filling out orders
- Maintained composure during situations with customers and help solve their problem

- Design activities to keep kids entertained
- Learned to pay attention to surroundings to keep oneself and others safe
- Practiced conflict resolution through sibling arguments

Activities
RCPD AutoCAD Volunteer Aug. 2019 – Present
Campus Crusade (Christian Organization) Aug. 2017 – Present
Slow Food MSU Aug. 2019 – Present
Tower Guard Aug. 2018 – May 2019

Awards and Skills
Best Poster – Lyman Briggs Symposium May 2019
Terry Selichter Scholars Scholarship May 2019
Deboer Family Fund Scholarship May 2019
MCH Michigan Competitive Scholarship May 2019
MSU Student Aid Grant May 2017– May 2019
Lab Skills Plating techniques, counting CFU, electrophoresis, ram staining
Engineering Tech Skills AutoCAD, Power GEOPAK, MatLAB
Proficient in Microsoft Office PowerPoint, Word, Excel
Career Objective
I am looking for a fulfilling internship position during the summer of 2020, where I can utilize my educational background, work experience, time management, and critical thinking skills to benefit both my employer and community.

Education
Michigan State University, East Lansing, MI
Bachelor of Science in Biosystems Engineering Graduation May 2021
Minor in Philosophy
◊ GPA – 4.0 / 4.0
◊ Honors – Dean’s List (Fall 2017 – Present), Alumni Distinguished Scholarship Recipient (awarded to the top 20 students in each class), National Merit Finalist, MSU Honors College

Work Experience
Southwest Research Institute, San Antonio, TX
Student Engineer- R&D June 2019 – August 2019
◊ Planned, pitched, secured $15,000 in funding for, and helped manage an internal project building a prototype universal plastic recycler
◊ Investigated the effects of additives on a chemical’s performance and presented findings to upper management

Student Assistant- R&D June 2018 – August 2018
◊ Collaborated with a team of engineering professionals in developing new chemical formulations, conducting material failure analysis and writing internal reports and proposals

Michigan State University, East Lansing, MI
Professorial Research Assistant August 2017 – May 2019
◊ Conducted laboratory research for 8+ hours per week, analyzing microbial systems
◊ Collaborated with a research team on projects associated with MSU’s anaerobic digesters and power plant, waste to resource conversion, algal biomass production, and water treatment

Normandy Catering, Chagrin Falls, OH
Banquet Server May 2017 – August 2017
◊ Consulted client contracts to properly arrange the banquet hall for events, served meals, bused tables, etc. to facilitate the execution of large-scale events in a fast-paced environment

Extracurricular Activities
Michigan State University, East Lansing, MI
Division I Varsity Cross Country and Track Athlete August 2017 – Present
◊ Demonstrating extensive time management skills through balancing the significant demands of Division I athletics and academics
◊ Continuously setting and achieving both individual and team-oriented goals

Boy Scouts of America
Eagle Scout Achieved June 2016
◊ Led and encouraged a troop of 30+ younger scouts in outdoor skill building activities
◊ Planned and orchestrated a kitchen renovation project to benefit a local church
Rachel Shapin  
Campus: 735 E. Shaw Lane, E. Lansing, MI, 48825  
Permanent: 5327 S. Elderberry Ct., Kentwood MI, 49512  
(616) 406-8366  
shapinra@msu.edu

Education

Bachelor of Science, Biosystems Engineering, GPA: 3.88  
Michigan State University, East Lansing, MI  
Expected May 2021

Experience

Michigan State University Math Tutor  
September 2018-present  
• Tutor students in math through Calculus 4

Blue Lake Fine Arts Camp Counselor and Lifeguard  
Blue Lake Fine Arts Camp, Twin Lake, MI  
Summer 2018  
• Assisted piano and band students with music and equipment  
• Ensured patron safety while surveilling and maintaining the pools  
• Managed biohazards

Refugee Tutor  
2016-2018  
West Michigan Refugee Education and Cultural Center, Kentwood, MI  
• Tutored refugee students from Asia, Africa, and the Middle East in multiple subject areas  
• Used French and Spanish to instruct refugee students not proficient in English

Honors

• Dean’s List all semesters enrolled  
• MSU Honors College Member, 2017-2019  
• MSU Pi Delta Phi French Honors Society Member, 2018-present  
• MSU Biosystems Engineering DeBoer Family Scholarship/Fellowship Fund, Spring 2019  
• MSU Engineering Abroad Scholarship, March 2019  
• Biosystems Engineering Undergraduate Scholarship, Michigan State University, 2017  
• Burger King McLamore Foundation Scholarship, 2017  
• West Michigan Spartans’ Outstanding Junior Scholarship, Summer 2016

Activities

• MSU Biosystems Engineering Club, 2017-2019  
• MSU French Club, 2017-2019  
• MSU Pláticas (Spanish Conversation Hour), 2017-2019  
• Michigan State University Leadership Advantage Program, 2017

Skills

• Basic laboratory experience  
• Fluent in French (Oral and Written)  
• Conversational and Written Spanish  
• Conversational Italian  
• Proficient in Microsoft Office  
• Certified Lifeguard
Matthew Smith
8360 Opal Drive, Westland, MI 48185
(734) 558-0827
smit2657@msu.edu

Education
Michigan State University | East Lansing, MI
- Bachelor of Science Biosystems Engineering Expected May 2021
- Minor in Computer Science
- Honors College
- GPA 4.00

Experience
MSU Infrastructures and Planning Facilities | Mechanical Team Intern | East Lansing, MI May 2018 – Present
- Perform field work by visiting buildings to take measurements and analyze rooms
- Exhibit engineering skills by using measurements to execute loading and ventilation calculations on HAP51 software
- Assist in redeveloping MSU’s rainwater capturing and usage system using AutoCAD

Biohazard and Risk Assessment Lab | Lab Assistant | East Lansing, MI May 2018 – Present
- Update and revise the Quantitative Microbial Risk Assessment wiki page
- Engage in processes involved in risk assessment of an environment

MSU Food Services Employee | Student Cook | East Lansing, MI March 2018 – April 2019
- Delivered outstanding customer service to ensure needs were met
- Comanaged by filling in as a student supervisor and taking over the administration of all student employees
- Received a promotion from a general worker to a student cook in charge of food
- Regulated the cafeteria’s cleanliness according to FDA regulations

Walnut Creek Country Club | Tennis Instructor | South Lyon, MI June 2017 – Sept. 2018
- Facilitated classes of 10-30 children of all ages
- Brainstormed new drills and games to provide the attendees with fun ways to improve
- Collected expenditure related data using excel formulas for the head accountant to access
- Augmented clients’ tennis abilities by assessing and informing them on areas to correct in order to better their tennis court awareness and fundamental skills
- Mentored children during competitive tennis matches in high pressure situations

Extracurriculars
Michigan State University Club Tennis Sept. 2017 – Present
MSU Green Alliance Aug. 2019 – Present
- Lead role in MSU Marketing Association’s philanthropic tree planting event
Chess Club Publicity and Outreach Officer Aug. 2019 – Present

Skills
Microsoft Word, PowerPoint and Excel, Python, AutoCAD, Matlab, C++, HAP51

Awards
Michigan Competitive Scholarship
2019 Club Tennis National Qualifier
2019 National Club Tennis Team of the Year
Alicia L. Ziegler
8991 J Drive South, Ceresco, MI 49033 269-753-2363 ziegle72@msu.edu

**Objective**
To obtain an entry-level engineering internship position in the summer of 2020 where I can further my experience and knowledge and add value to the company.

**Education**

**Michigan State University** (MSU), East Lansing, MI 2016-Present
- Bachelor of Science (BS) Biosystems Engineering Expected May 2021
- Food Industry Management Minor
- GPA: 3.93/4.00
- Dean’s List Fall 2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019

**Harper Creek High School/ Battle Creek Area Math and Science Center**, Battle Creek, MI 2016
- Valedictorian

**Experience**

**Operator**, Ziegler Poultry Company and Ziegler Family Farms, Ceresco, MI June 2013-Present
- Care for over 150,000 pullet and breeder chickens
- Assist in training new employees
- Contribute to the management of a 350+ head Holstein cattle feeding operation
- Operate machinery to carry out farming tasks

**Production Management Engineer Intern**, Cargill, Dayton, VA Summer 2019
- Learned the operations of the largest turkey processing plant, by head, in the world
- Critically analyzed the air flow in Primary Processing to evaluate current conditions and propose feasible solutions to improve stakeholder comfort and minimize condensation
- Conducted an air flow study to visualize the air circulation patterns from the room’s 44 fans
- Evaluated the size and performance of the current heating, ventilation, and air conditioning (HVAC) units for temperature control and moisture removal and performed cooling load calculations on the room’s heat sources
- Conducted an internal environmental study to address food safety concerns from condensation
- Developed AutoCAD drafting skills to illustrate and communicate design ideas and solutions
- Designed a new fan arrangement in AutoCAD to prevent air stratification, reduce downtime and USDA noncompliance records (NRs), and improve employee comfort, safety, and retention levels
- Conducted an internal environmental study to address food safety concerns from condensation
- Developed effective communication skills and built relationships with a diverse audience
- Gained understanding of how different departments work in harmony to run a productive and profitable plant
- Developed flexibility to adapt to changing priorities on the plant floor based on production needs

**Operations Management Intern**, Cargill, Lake Odessa, MI Summer 2018
- Awarded 2nd place on corporate judged intern project and presentation out of 100+ entries
- Followed the Project Work Flow and completed a project charter to actualize ideas for the X5 freezer to reduce annual nitrogen usage by $25,000
- Trained alongside operators on all three shifts to gain knowledge of operations and troubleshooting procedures to create a comprehensive folded egg line (FEL) operator training manual and program
- Analyzed the pasteurized whole egg (PWE) line and the Extruded 5 (X5) freezer
- Proposed possible solutions to R&D and followed the appropriate steps of project implementation
- Collaborated with the customer’s business connection to change packaging graphics to ensure proper restacking and reduce the number of quality defects
- Developed effective communication skills and built relationships with a diverse audience
- Gained understanding of how different departments work in harmony to run a productive and profitable plant
- Developed flexibility to adapt to changing priorities on the plant floor based on production needs

**Activities/Volunteer**

**Secretary and ASABE Representative**, Biosystems Engineering Club, MSU, East Lansing, MI 2016-Present
- Prepare and dispense biweekly newsletters to club members
- Communicate and coordinate with the local ASABE professional chapter and report back to the president

**Fundraising Chair**, Stock Seat Equestrian Team, MSU, East Lansing, MI 2016-Present
- Initiate and coordinate fundraising efforts for the organization
- Correspond with the team accountant to establish a report of each fundraiser
Resume Book
Fall 2019

Expected 2022 Graduates
Andrea Ma  
2713 Sophiæ Pkwy, Okemos, MI 48864 • (213) 505-7065 • andreaca@msu.edu • www.linkedin.com/andreaca

Education

**Michigan State University**, East Lansing, MI Expected May 2022
*Bachelor of Science Biosystems Engineering, Food engineering Concentration*
Major GPA: 3.82/4.0; Cumulative GPA: 3.41/4.00
Dean’s list: 2 semesters

**Central University of Finance and Economics**, Beijing, China May – Aug. 2015
International Business Study Abroad

International Study Abroad in Accounting

Professional Experience

**7C Lingo**, Lansing, MI May 2014 – Present
Part-time interpreter

- Interpreted for Chinese and Mandarin speaker in medical field, court cases and pre-school educational field
- Interpreted at emergency room in Sparrow Hospital
- Achieved 98% excellent clients rating for interpreting service
- Obtained certification for English interpreting

**Meijer**, Okemos, MI Feb. 2018 – July 2019
Part-time cake decorator, Part-time bakery clerk

- Certified cake decorator & food safety test certification
- Decorated average 12 cakes each working day in fast-past working environment
- Provided courteous and promote cake ordering service customers of different cultural backgrounds
- Ensured all cake decoration service and preparation areas were clean and met sanitation standards

Part-time tax service

- Provided tax compliance service on federal, state, and local customers.
- Utilized problem solving skills to remain professional in stress-related situations

Part-time Sale Associate

- Achieved annual top sales: 2014, 2016 and 2017
- Increased monthly total sale over 30%
- Assisted manager in training new hires, onboarding 8 new associates to date
- Resolved customer concerns efficiently to maintain positive relationships and brand loyalty

Activities & Skills

**MSU Women in Engineering** Jan. 2017 – Present
**Biosystems Engineering Club** Jan. 2017 – Present
**Chinese, Cantonese, and English Language, Fluent**
**MATLAB & Simulink, Advanced**
Objective: An engineering internship in alternative energy, environmental protection, or sustainability.

Education

- **Michigan State University**: East Lansing, MI
  - Bachelor of Science, Biosystems Engineering
  - Minor in Women’s and Gender Studies
  - Honors College member; 4.0/4.0 GPA; Dean’s List
- **Haslett High School**: High school diploma, Haslett, MI
  - Ranked #1 in class; 4.0 GPA

Work Experience

- **Research Assistant**: Professorial Assistantship Program
  - Michigan State University (Dr. Yan Liu and Dr. Wei Liao)
    - Test nutrients and properties of algae samples
    - Trained new employee on algae sample testing procedures
    - Participate in team-based research on renewable energy
    - Contribute to other projects, such as carbon dioxide absorption

- **Research Intern**: EnSURE Research Program
  - Michigan State University (Dr. Yan Liu and Dr. Wei Liao)
  - Worked on algal research on culture conditions
  - Created/presented a research paper and poster at MSU Mid-SURE
  - Learned and applied metagenomic analysis skills, such as DNA extraction and qPCR analysis

Activities and Volunteer Experience

- **MSU Tower Guard Member**
  - Volunteer 4 hours per week at the Resource Center for Persons with Disabilities

- **Industry Advisory Board Rep.**: MSU Biosystems Engineering Club
  - Attend industry advisory board meetings and general meetings

- **Member**: MSU Concert Orchestra, trombone
  - Jan. 2019 – present

- **Mentee**: MSU Women in Engineering Peer Connect Program
  - Sep. 2018 – May 2019

- **Member**: MSU One Community campus ministry
  - Sep. 2018 – present

- **WAM Bike Tour Rider**
  - Raised money for the Make-A-Wish Foundation of Michigan
  - 2018-present

- **Drum Major**: Haslett High School Marching Band, Haslett MI
  - 2017 – 2018

- **National Honor Society Volunteer**: Haslett, MI community
  - 2016 – 2018

Honors/Awards

- MSU Honors College STATE Scholarship
- MSU College of Engineering Anibal Memorial Scholarship
- MSU Biosystems Engineering Freshman Scholarship
- Maine Mayflower Society Scholarship
Isabella Sio
4783 Lockhart Street
West Bloomfield, MI 48323
sioisabe@msu.edu  |  (248) 962-8847

Education
Michigan State University; East Lansing, MI  May 2022
Bachelors of Science, Biosystems Engineering
• GPA: 3.26/4.0

Experience
Service Center Representative  Sept. 2019
Residential Housing Services in North Neighborhood; East Lansing, MI
• Sign for packages and checked in for residence of living halls
• Answer questions about the building or Michigan State campus
• Check in and out services such as vacuums and linens provided by the Service Center

The Sports Club of West Bloomfield; West Bloomfield, MI
• Greet and check in every Sports Club members at the front desk
• Clarify questions about Sports Club membership by communicating their questions and concerns with the
  Manager on Duty
• Schedule and organize tennis courts using Microsoft Excel
• Receive and organize payments from members of the Sports Club using Point of Sale Systems
• Sign for packages and ensure they are received by a faculty member

Aqua Tots Swim Schools; Novi, MI
• Taught 200+ children, ages 2-12 years old, on how to be safe in and around water
• Used patience to calm and encourage scared children to swim to me
• Addressed each students’ parents about their child’s progress
• Trained and mentored new Water Safety Instructors through side by side teaching
• Cleaned the pool desk and organized the pool area in my spare time

Lifeguard  June 2017 — Aug. 2017
The Sports Club of West Bloomfield; West Bloomfield, MI
• Surveyed patrons in 1 of 3 swimming pools with a team of 6 people
• Performed first aid on children and adults
• Measured the chemical levels of each pools to ensure correct chemical levels for patrons

Activities/Leadership
• Women in Engineering, Member  Sept. 2018
• Michigan State Swim Club, Member  Sept. 2018
• Philippine American Student Society, Member  Sept. 2018
• Philippine American Student Society, Secretary  June 2019 — May 2020

Skills and Certifications
• Proficient Microsoft Word and Microsoft Powerpoint
• Basic Knowledge in Spanish
• Certified in CPR/First Aid
Department of Biosystems and Agricultural Engineering
MICHIGAN STATE UNIVERSITY
Resume Book
Fall 2019

Expected 2023 Graduates
EDUCATION
Michigan State University, College of Engineering, Biosystems Aug 19 – Present
Detroit Catholic Central High School, Novi, MI GPA:4.3 2019

OBJECTIVE
• To find a summer internship/co-op that enhances my engineering abilities along with my leadership and character skills to provide a direct experience in the real world

EMPLOYMENT
Professorial Assistant, Michigan State University 2019-Present
• Undergraduate Research at Nano-biosensors lab, College of Engineering.

Rehab Technician, The Recovery Project LLC, Livonia, MI 2018-Aug 2019
• Assisted physical and occupational therapists with their clients by helping clean and grab equipment to allow therapy sessions to run smoothly
• Set up clients on functional electrical stimulation stim bikes by applying electrode pads to stimulate client’s muscles
• Conducted workouts with clients by utilizing gym equipment to improve clients well being

Sales Associate, Foot Locker, Novi, MI 2018
• Aided customers with sales by operating cash registers, organizing shelves, and answered questions about merchandise and services to enhance customer satisfaction

ACTIVITIES/HOBBIES
• Senior Class President, Student Council; Class officer 2015-2019
• Varsity Soccer, Captain 2015-2019
• Staff Editor, School Newspaper SPECTRUM 2017-2019
• Spanish Club & Spanish Honors Society 2015-2019
• Health Occupations Students of America (HOSA) 2016-2019
• VEX Robotics 2016-2017
• Michigan State Univ Honors College HC Impact program Aug 2019
• Volunteer, Beaumont Hospital 2018 – Present

HONORS/AWARDS
• MSU Honor’s College Professorial Research Scholarship 2019
• Community Choice Foundation Scholarship 2019
• MSU Alumni Club of Oakland County Scholarship 2019
• Gabriel Richard Club & Honor Roll 2016-2019
• Varsity Soccer State Championship, All League & District Team 2017
• School Department Award of Excellence Achievement 2016-2019
• National Honors Society 2017-2019
• 4-H Pre-College Scholarship Winner 2017
• HOSA Regional and State Finalist 2017-2019
• VEX Robotics State Finalist 2016-2018

REFERENCES
• Available upon request
Kaitlyn Jensen
Cell: 1(810) 956-7956 E-mail: jense129@msu.edu Address: 3215 Saint Clair Highway, China Twp, MI 48054

OBJECTIVE
• Seeking an engineering internship for summer 2020 in Biosystems Engineering to strengthen my engineering experience.

EDUCATION
Michigan State University, East Lansing, MI
Bachelor of Science in Engineering, Biosystems Engineering Expected Graduation: May 2023
St. Clair High School, St. Clair, MI High School Diploma Graduated: June 2019
GPA: 3.92

WORK EXPERIENCE
The Anchor Point Bistro, St. Clair, MI May 2019- August 2019
Server
• Delivered friendly and efficient service to ensure a pleasant dining experience for all guests.
• Maintained knowledge of the menu, specials and preparation methods and recommended items based on costumers needs/preferences to increase sales.
• Balanced side work alongside having tables such as rolling silver ware, refilling condiments, stocking items all to create cleanliness of the dining area for guests.
• Managed and processed orders and their accompanying financial transactions on Touch Bistro.

Simply Fresh Café, St. Clair, MI May 2018 – August 2019
Kitchen Staff
• Managed food preparations and cooking in the kitchen to optimize function and communication of kitchen when orders came in to provide fast and efficient service to customers.
• Dedicated to the safety of kitchen by implementing proper food storage and labeling, kitchen supplies and equipment.
• Sustained the cleanliness of the restaurant by sweeping and mopping floors, bussing tables, and stocking items for customers use.

McDonald's, St. Clair, MI May 2017 – August 2017
Crew Member
• Worked in a fast-paced team environment as a front-end cashier and Drive-Thru to deliver quality food to customers fast with a smile
• Maintained restaurant quality and was dedicated to providing guest satisfaction by monitoring their needs, such as stocking, cleaning work areas

LEADERSHIP
Leadership Advantage Program, MSU August 2019
• Participated in a team environment to successfully design, develop and execute a working Trebuchet.
• Collaborated with team to construct the prize winning 30 second skit that explained what engineering is to an audience.

ACTIVITIES
High School:
National Honor Society Member
Student Council Member
Varsity Tennis Member
Varsity Cross Country Member
LINKS Member

College:
Women In Engineering
Society Of Women Engineers Pairs
Biosystems Engineering Club

COMPUTER SKILLS
Applications: Proficient in Microsoft Office
Resume Book
Fall 2019

Recent Graduates / Graduate Students
JESSICA HAUDA
8359 Alvord Street, McLean VA 22102 | haudajes@msu.edu | jkhauda@gmail.com | (703)-967-6746

Education:
Michigan State University | East Lansing, MI
Master of Science | Biosystems Engineering
Bachelor of Science | Biosystems Engineering | GPA: 3.6 / 4.0

- A.W. Farrall Scholarship Recipient
- MWEA Jack H. Wagner Scholarship Recipient
- Michigan Potato Industry Commission Scholarship Recipient
- Dean’s List | College of Engineering

Expected May 2020
May 2019
Spring 2018
Spring 2018
Spring 2018
Fall 2015, Spring 2016, Spring 2017, Fall 2018, & Spring 2019

Experience:
Graduate Research Assistant | MSU Department of Biosystems and Agricultural Engineering
February 2017 - Present

- Able to communicate complex ideas effectively in a range of formats to a variety of audiences
  ✓ Ex: volunteered at “Introduce a Girl to Engineering Day” to integrate hands-on learning with real-world engineering problems
- Able to coordinate and conduct the education, training, and managing of students
  ✓ Ex: mentor students on laboratory techniques and data interpretation to prepare for the annual University Undergraduate Research and Arts Forum (UURAF) poster presentations
- Able to organize and ensure that large amounts of data are collected and analyzed at its highest quality
  ✓ Ex: prepare standard operating procedures and data collection spreadsheets
- Able to convey detailed and relevant scientific data in a succinct and timely manner
  ✓ Ex: weekly data presentations to the Principal Investigator and project members to validate data trends and fix problem areas
- Experienced at negotiating and managing collaborative projects
  ✓ Ex: collaborate with other project leaders, undergraduate students, principal investigators, and committee members

Teaching Assistantship | MSU Department of Biosystems and Agricultural Engineering
Spring 2018 & Spring 2019

- Gave constructive feedback and assistance with course material through office hours and exam review sessions
- Assisted with honors labs and moderated online discussion boards to engage students beyond the course material

Communications Fellow | College of Engineering Graduate Leadership Fellows Program
Fall 2018 – Spring 2019

- Updated and maintained website using Drupal software
- Gathered information for the website and distributed information of interest to graduate students through social media sites

Justin S. Morrill Leadership Fellow | College of Agriculture and Natural Resources
Fall 2018

- Represented the College of Agriculture and Natural Resources (CANR) at events statewide to stakeholders and community partners
- Lead 10 to 25-person tour groups and encouraged future students to pursue studies within the college’s degree programs

International Research Experiences for Students (IRES) in Costa Rica | National Science Foundation
Summer 2018

- Constructed and operated a pilot-scale aquaponics system that used invasive aquatic plants to clean nutrient-rich water and provide biomass to an anaerobic digester
- Volunteered at an indigenous village – installed solar panels, implemented a water filtration system, and optimized the current septic system to promote the village as an ecotourism destination to increase annual revenue to the village
- Acclimated to Costa Rican culture with limited Spanish – memorized multiple bus routes, celebrated national holidays, learned how to cook traditional Costa Rican cuisine
- Volunteered at the Engineering Showcase – A 5-day event where high school students could learn more about the Biosystems and Agricultural Engineering department at the University of Costa Rica; Presented aquaponics research (in Spanish) and assisted with set-up, clean-up

Extracurricular Activities:

- Biosystems Engineering Club | President (2018-2019), Vice President (2017-18), ASABE Representative (2016-17)
- Biosystems Graduate Student Advisory Group | Department Advisory Committee Representative
- National Corn Growers Association | Member
- Michigan Water and Environment Association | Member
- American Society of Agricultural and Biological Engineers | Member
- Solar Car Team | Mechanical Team
- Michigan State University Concert Orchestra | Violinist

Present
2018 - Present
2018 - Present
2018 - Present
2018 - Present
2015 – 2016
2015

52
Katelyn Skornia, E.I.T.
06028 Zenith Heights Road, Boyne City, MI 49712
(231) 675-4884 | skorniak@msu.edu

Objective: Gain full-time employment as a water process engineer at a consulting firm for Fall 2020.

Education

Michigan State University; East Lansing, MI
M.S. in Biosystems Engineering (GPA: 4.00/4.00) Expected: May 2020

B.S. with High Honors in Biosystems Engineering, Honors College (GPA: 3.94/4.00) May 2019
Minor in Sustainable Agriculture and Food Systems, Concentration in Ecosystems Engineering

Study Abroad for Sustainable Food, Environment and Social Systems in Australia May 2017 – June 2017
• Sustainability focused site visits including wastewater treatment plants, food processors, and renewable energy projects
• Final project analyzed the benefits and implications of tourism and strategic conservation on the Great Barrier Reef

Experience

• Identified single contributor of 33% of carbon loading to municipal wastewater treatment system and proposed solutions to operators and local government to prevent system failure
• Collaborated on multi-disciplinary teams to prepare reports, maps, and easements for clients
• Completed engineer estimates, hydraulic calculations, equipment comparisons, and data analysis for designs
• Performed fieldwork including sample collection and construction inspection on collection and treatment systems

Quality Assurance Intern; McCormick & Co., Hunt Valley, MD June 2018 – Aug. 2018
• Automated and improved risk analysis for all global raw materials at all American facilities, reducing lead time for each facility from 9 workdays to 1 hour
• Identified and developed a half-million-dollar quality improvement rollout plan to improve overall safety in the facility
• Standardized GMP-compliant cleaning process for vinyl totes for use at all American facilities

Engineering Intern; Burnette Foods, Inc., East Jordan, MI June 2017 – Aug. 2017
• Partnered with an engineering firm to design a chiller system for processing potatoes resulting in improved quality of product
• Constructed sections of Process Safety Management documents in accordance with EPA and MIOSHA regulations
• Monitored water quality of influent and effluent flows utilizing laboratory instrumentation to meet regulations

Leadership Experience

Graduate Research Assistant; MSU Department of Biosystems and Agricultural Engineering Sep. 2018 – Present
• Designed experimental systems and testing procedures for investigating nutrient fate in wastewater
• Analyzed and solved system failures in bench-scale experiments, ensuring quality of experimental data
• Managed multiple projects simultaneously including allocation of resources, scheduling, material procurement, and timeline adherence

Teaching Assistant; MSU Department of Physics and Astronomy, East Lansing, MI Jan. 2017 – Jan. 2019
• Communicated individually with students via weekly written constructive feedback
• Developed and implemented automated grading tool to minimize grading discrepancies between instructors
• Facilitated student learning through project-based discussions, focusing on core mechanical concepts

Resource Center for Persons with Disabilities Volunteer; MSU, East Lansing, MI Sep. 2016 – May 2017
• Math tutor for student with visual impairment and scribe for students with impaired motor control

Skills
• Advanced in MS Excel including VLOOKUP, INDEX/MATCH, and nested IF statements
• Working Knowledge in R Studio, ArcGIS, VPython, MATLAB, Adobe Photoshop
• Strong shop and safety skills including welding and operating heavy equipment

Memberships and Activities

Water Environment Federation; member Sep. 2019 – Present
Michigan Water Environment Association; member Sep. 2019 – Present
MSU Women in Engineering; mentor 2015 – 2018
Personal interests include travel, healthy cooking, gardening, soccer, kayaking, and practicing yoga.