Matthew K. Vasher

9107 Sea Breeze, Pinckney, MI 48169 ● (734) 417-4306 ● vasherma@msu.edu

Education

Bachelor of Science in Biosystems Engineering Exp. May 2017
Master of Science in Biosystems Engineering (Dual Enrollment) Exp. May 2018
Michigan State University, East Lansing, MI

- GPA 4.0/4.0, Dean's List, Honors College member
- Biomedical Concentration

Experience

Lab Manager Aug. 2016 – present
Undergraduate Research Assistant Sept. 2013 – Feb. 2016
Dr. Evangelyn Alocilja's Nano-Biosensors Lab, Michigan State University

- Direct research projects, lab operations, and finances
- Develop novel methods for rapidly detecting the dengue virus and *E. coli*
- Conduct research part-time during school year and full-time during summer 2014
- Collaborate internationally with labs in the Philippines and Mexico
- Train new researchers in lab skills and machine operation

Undergraduate Teaching Fellow Sept. 2015 – Dec. 2015
BE 101: Introduction to Biosystems Engineering, Michigan State University

- Assisted Dr. Bradley Marks in teaching BE 101
- Held office hours and graded assignments
- Provided career advice and coursework guidance

Manufacturing Operations Intern May 2015 – Aug. 2015
Beckman Coulter Inc., Danaher Corporation, Chaska, MN

- Implemented a design change for antibody purifications that will save $40,000 per year
- Trained in Danaher Business System
- Drafted business documents including protocols, plans, and risk analyses
- Participated in a kaizen event and redesigned assembly line to improve productivity
- Presented project outcomes to executive officers

Research and Development Intern May 2016 – Aug. 2016
Beckman Coulter Inc., Danaher Corporation, Miami, FL

- Developed an automated blood cell preparation device that will bring $9.5 million in revenue
- Incorporated a novel physical process into the device
- Contributed to a patent for the device

Activities

Tau Beta Pi Dec. 2015 – present

- Social Chair - Plan club activities and events

Biosystems Engineering Club Sept. 2014 – present

- Social Chair, ESC Representative - Communicate between organizations

Concrete Canoe Sept. 2014 – May 2016

- Co-Captain, Academic Officer - Directed team progress and design report

Honors and Awards

- A.W. Farrall Scholarship - The most prestigious biosystems engineering scholarship, based on academic achievement and leadership, awarded $2,500
- University Undergraduate Research and Arts Forum (UURAF) Grand Prize - First place research paper and presentation in STEM category out of over 750 presenters, awarded $600
- College of Agriculture and Natural Resources (CANR) Deans Choice Award - Third place presentation, awarded $75
- CANR Undergraduate Research Program - Awarded competitive funding for research
- Distinguished Freshman Scholarship - Full tuition for 8 semesters awarded from 2013 Alumni Distinguished Scholarship Competition, ranked among top 35 test scores out of 1,200 competitors