Emma Brewer

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Objective: To obtain a summer internship in the field of biomedical engineering with applications to the development of medical devices

Education:

Bachelor of Science in Biomedical Engineering and Mathematics — May 2020
Rose-Hulman Institute of Technology; Terre Haute, IN — GPA 3.84/4.0
Related Coursework: Biomedical Instrumentation & Measurements, Analysis & Design of Engineering Systems, Mechanical Systems, Fluid Systems, Comparative Anatomy & Physiology, Deterministic Models in Operations Research

Skills:

Software: MATLAB, LabVIEW, Solidworks, Python, Pyomo Optimization, LabScribe, Latex, R Studio

Experience:

Research & Development Engineering Internship — *May 2018 - August 2018*
Minnetronix Medical – Neuro Division; Minneapolis, MN
- Designed and implemented the addition of a drug infusion system to the cutting-edge neurapheresis treatment platform designed by Minnetronix Medical
- Constructed and integrated a graphical user-interface using LabVIEW to control the infusion pump and log relevant data for future pharmacokinetic and pharmacodynamic modeling
- Produced clear and concise written and visual documentation of project progress and testing
- Collaborated with physicians, industry experts, and academic researchers at Duke University to define project scope and future application

Biomathematics Undergraduate Research Experience — *June 2017 - August 2017*
Indiana University – Purdue University Indianapolis; Indianapolis, IN
- Coupled an existing acute mathematical model of Peripheral Arterial Disease to chronic vascular responses using MATLAB
- Worked with mentors and partner to further understanding of mathematical modeling
- Read scientific literature to obtain data used to calibrate the model
- Presented research through lecture and poster session at two conferences

Ask-Rose Homework Help: Supervisor — *September 2016 - Present*
RHIT Learning Center; Terre Haute, IN
- Oversaw 20-30 employees to ensure and encourage best practices in the workplace
- Communicated clearly with students and parents to serve their needs via email, chat, and call
- Served as a trainer to new tutors by allowing them to shadow during tutoring phone calls
- Provided annual feedback for individual tutors to aid the improvement of their tutoring and communication methods

Activities:

Biomedical Engineering Society, *Executive Board (2018-2019)* — *August 2016 – Present*
- Collaborated with student officers and faculty members to revive a diminished club and improve the value of BMES to its members

Lilly Scholars Network, *Treasurer (2018-2019)* — *January 2018 – Present*
- Contributed to the development of a new club through the organization of both community service and networking events

Engineers Without Borders, *Treasurer (2017-2018)* — *August 2016 – Present*
- Managed a budget and 3 large accounts to ensure funds for travel, materials, and lodging during trips overseas

Awards:

Dean's List — 6 of 6 Quarters
Lilly Endowment Community Scholarship Recipient — 2016