

REBECCA CLEMENTS

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EDUCATION

University of Delaware

Honors Bachelor of Biomedical Engineering

GPA: 3.73

Academic Awards: Distinguished Scholar, Society of Women Engineers Scholarship

Skills: *Programming Languages* - Matlab, Python, C#, C++, Wolfram Mathematica

Imaging - Level 1 Magnetic Resonance Personnel Certification

Library Proficiencies - OpenGL, TensorFlow

Newark, DE

May 2021

EXPERIENCE

Mechanical Neuroimaging Lab

Newark, DE

Undergraduate Researcher under Dr. Curtis Johnson

August 2018 - Present

- Developing a method of making earlier diagnoses of neurodegenerative diseases by creating an artificial neural network to assess brain health from quantitative maps of brain tissue stiffness
- Extract and analyze data from magnetic resonance images using MATLAB image processing tools and other neuroimaging software packages (i.e. FSL and Freesurfer)
- Past project involved using magnetic resonance elastography measures to show how mechanical properties of the adolescent brain are related to risk-taking behaviors

Scalable Tissue Imaging and Modeling Lab

Houston, TX

"Neurotechnologies to Help the Body Move, Heal and Feel Again" REU Student

May 2020 - July 2020

- Developed an visualization tool to automatically render vectors generated from the locations of brain vessels
- Utilized C++ and OpenGL to develop the tool and make the tool responsive to keyboard input in real-time
- Attended weekly seminars and workshops about the different fields of neurotechnology research and professional development

Hologic, Inc.

Newark, DE

Software Quality Assurance Intern

June 2019 - August 2019

- Streamlined the testing process of mammography equipment by developing a C# application to modify and anonymize DICOM medical imaging test data
- Increased employee efficiency by creating a mapping process and an associated C# tool to migrate 30,000 software change requests from ClearQuest (legacy tracking system) to Jira (current, more modern system)

LEADERSHIP

University of Delaware Ambassadors of Biomedical Engineering

Newark, DE

Student Ambassador

May 2019 - Present

- Promote the University of Delaware Biomedical Engineering program by giving tours of engineering labs and speaking to prospective students
- Formally held position as Internal Project Manager - planned demonstrations and hands-on activities for prospective students to learn about biomedical engineering

Alpha Omega Epsilon Professional Engineering Sorority

Newark, DE

2nd Vice President

May 2020 - Present

- Act as a liaison between 20 chair positions and the executive board of the sorority by overseeing event planning, fundraisers, recruitment, and social media postings
- Formally held positions as Secretary and Academic/Scholarship Chair - ensured that events ran smoothly by taking attendance and sending emails to sorority members; organized study hours and sent a weekly list of scholarships to members
- Planned and led "Engineering Discovery Day," an event designed to teach 50 female high-school students from 26 high schools about the different fields of engineering and the ever-growing role women play in these fields