

# 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