ELIZABETH HALLENBORG

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EDUCATION

JOHNS HOPKINS UNIVERSITY **Baltimore, MD**
Mechanical Engineering, Bachelors of Science *Mathematics, Minor* *Class of 2018*

UNIVERSITY OF CALIFORNIA, LOS ANGELES **Los Angeles, CA**
Mechanical Engineering *September 2014 - June 2015*

WORK & VOLUNTEER EXPERIENCE

WELLINGTON MANAGEMENT COMPANY **Boston, MA**
Systems Analyst *July 2018 – Present*

- Member of the Mosaic Investment Science team working on rapid investing solutions incorporating natural language processing (NLP)
- Programmed a framework leveraging JS/HTML and AWS S3, CloudWatch and Lambda to facilitate the scaling of AWS virtual machines
- Designed and developed dashboards using Bokeh and python showcasing semantic profiling of investors' research notes as well as data concerning construction starts across the country
- Created an inbox scrapper in Java, using AWS Lambda & S3 to enable the document collection for a CLO search engine

TRANSATLANTIC REINSURANCE **New York, NY**
Property Underwriting Intern *May 2017 – August 2017*

- Conducted a study on the effects of loss modelling framework (LMF) segments on estimated loss for catastrophe models on over 80 national accounts

HOPKINS ROCKETRY TEAM (ASTROJAYS) **Baltimore, MD**
Structures Member, Video Editor *June 2017 – August 2018*

- Assisted in the design, prototyping and testing for the structural components of main competition rocket
- Filmed and edited promotional material that was used to raise over $10,000 in funding

BALTIMORE ROBOTICS INSTITUTE **Baltimore, MD**
Mentor, 2017 Vice President, 2016 Treasurer and Social Chair *August 2015 – May 2018*

- Mentored middle school robotics clubs to competition level proficiency in both VEX and VEX IQ

RESEARCH

JOHNS HOPKINS UNIVERSITY BAYVIEW CAMPUS: SENIOR DESIGN CAPSTONE PROJECT **Baltimore, MD**
PROP18, SPINE18 *August 2017 – May 2018*

- For the fall semester, as part of PROP18, designed and evaluated the effectiveness of a genetic algorithm programmed in MATLAB used for the design of 3D-printed drone propellers
- SPINE18 explored methods of predicting pedicle screw pullout during spine reduction surgeries from algorithms developed from measuring screw displacement to natural frequency, bone color, and acoustic signals

DR. MICHAEL MELLON, JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY **Laurel, MD**
Ice Regolith Project *November 2016 – May 2017*

- Designed a scraping device to collect samples while withstanding an environment similar to that of Europa

DR. ROBERT STEVENS, JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE **Baltimore, MD**
Motion Detection in Patients with Traumatic Brain Injuries *January 2016 – February 2017*

- Assisted in the designing of a device using MEMS accelerometer and teensy-druino to monitor the micromovement of patients
- Processed position data of the accelerometer gathered via Bluetooth using MATLAB and UNIX code

SKILLS & ACTIVITIES

- **Programming:** Python, Java, HTML, CSS, JavaScript, ReactJS, UNIX, MATLAB
- **Applications:** AWS, Adobe Suite, Microsoft Office, Sony Vegas, Creo Parametric, SolidWorks
- **Manufacturing:** 3D-Printing, Laser cutting, Wire EDM, Mill, Lathe, Welding
- **Other:** Dual US/UK Citizenship, Archery range-master certified