LIAM A. WARD

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EDUCATION

Boston University College of Engineering, Kilachand Honors College, Boston MA
Bachelor of Science, Mechanical Engineering, May 2022
GPA: 3.89, Dean's List, (all semesters) Fall 2018, Spring 2019, BU College of Engineering

Honors
Distinguished Lutchen Research Fellowship, BU College of Engineering

Relevant Coursework
Mechanics of Materials, Electric Circuits, Statistics, Engineering Design, Differential Equations, Multivariable Calculus, Linear Algebra, MATLAB Programming, Calculus-based Physics, Chemistry

PROJECTS

"High Powered Rocket Competition" BU Rocket Propulsion Group
- Worked on a team of three to design a high-powered rocket from scratch on a fixed budget and schedule.
- Analyzed and optimized the vehicle design using OpenRocket simulation software.
- Designed parts in Solidworks CAD Software.
- Fabricated parts using CNC Laser Cutting.
- Oversaw launch site operations for a successful launch.

"Summer Trade Study" BU Rocket Propulsion Group
- Researched aerodynamics of rockets and their nose cones for transonic and supersonic speed regimes.
- Wrote MATLAB scripts to optimize various possible nose cone geometries.
- Corresponded with other rocket subsystem teams to ensure coherence.

EXPERIENCE

Research Intern   Summers/Winters 2017 – 2019
Saint Joseph's University Physics Department   Philadelphia, PA
- Worked through reviewer comments to revise a pedagogical paper titled "Measuring the Impulse of Sudden Impacts on Foam with Varying Elasticity".
- Utilized various fabrication techniques to redesign and reconstruct the experimental apparatus.
- Used Vernier Force Sensor with Logger *Pro* to generate data which was graphed in MS Excel and was used to analyze the relationship between elasticity of foams and the impulse experienced from varying impacts.
- Used MATLAB to produce a script to manipulate and analyze large datasets.
- Recalled physics knowledge to tackle complex questions from the reviewers and devised new experiments to test hypotheses.
- Authored many revisions of paper which is pending publication.

SKILLS

Computer: MATLAB, Solidworks, MS Office, Logger *Pro*, HTML5, CSS, some experience in JAVA
Languages: Conversant in Spanish

ACTIVITIES

Member, BU Rocket Propulsion Group
Peer Mentor, Kilachand Honors College
President/Co-Founder, BU Irish Association
Avid Pianist, Organist and Irish Accordion Player