Shaun **FEDRICK**Physics / Mechanical Engineer | Master's Student

in linkedin.com/in/shaun-fedrick-0b2069144

github.com/sfedrick Portfolio: https://bit.ly/31t1lk1

Philadelphia, PA i U.S. Citizen





December 2021 January 2020 University of Pennsylvania | M.E.A.M (Mechatronics and Robotic Systems), (M.S.E.), (3.7/4)

> Mecahnical engineering master's student, concentrating in mechatronic and robotic systems.

 Engineering Technologies
 Rapid Prototyping
 Mechanics
 Stress and Failure Analysis
 Sensors
 Robotics
 Design

December 2020 August 2016 Haverford College Physics (B.S.), HAVERFORD, PENNSYLVANIA, (3.1/4)

> Fluid dynamic research; Thesis: Touch Down of a Sphere in Viscoelastic Media

> Questbridge Scholar, Chesick Scholar, and J. Henry Scattergood Scholarship recipient

Physics Analytical Thinking Problem Solving Coding Sensors Expirementation



PROFESSIONAL EXPERIENCE

May 2020

Fluid dynamic research | Student Researcher, HAVERFORD COLLEGE AND UNIVERSITY OF PENNSYLVANIA, Pennsylvania

December 2018

- > Analyzed mechanics of a probe using Matlab, Java, and Fiji
- > Designed apparatuses to observe lubrication forces in viscoelastic fluids
- > Fabricated apparatuses using a laser cutter, 3d printer, and machined parts
- > Characterized viscoelastic fluids using a rheometer

Matlab | Solid Works | Java | Instron testing instruments | Command line tools | Fiji

May 2020

Physics Clinic Student Tutor, HAVERFORD COLLEGE, Pennsylvania

August 2019 | Tutored students in intro physics this includes:

- > Free bodies, trajectories, gravity, rotational motion, and various other lessons in mechanics
- > Coulombs law, circuitry design, Maxwell's equations, and various other lessons in E&M

Circuitry Mechanics Analysis Teaching Communication

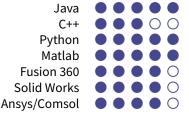
May 2019 August 2016 Digital Scholarship | Digital Scholar, HAVERFORD COLLEGE, Pennsylvania

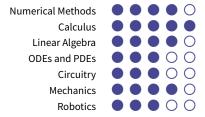
- > Programming in Python, Django, and D3.js
- > Navigating through a server and managing it
- > Command line tools

Django Python D3.js Bootstrap Command line tools

PROGRAMMING AND TECHNOLOGIES









Coding and Technical Skills

Java, Matlab, Python, C++, Fusion 360, Solid Works

Fabrication and Design
Math and Science

Rapid prototyping, 3d printing, lasercutting, CNC milling

Technologies

Mechanics, numerical methods, Calculus, ODEs, PDEs, Circuitry, Robotics Ros, Gazebo, Ansys, Comsol, Fiji, iMovie

Office Skills

Linux, Command Line Tools, Power Point, Git, Website Design, Excel, Word, FFX

Other

Teaching, Device Trouble Shooting