

Alex Moss

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United States of America Citizen

Objective

To obtain an engineering internship for the Summer semester of 2021 that offers hands-on experience with structural or functional materials.

Education

Georgia Institute of Technology, Atlanta, GA

Aug. 2017 – Present

GPA: 3.66/4.0

- Candidate for Bachelor of Science in Material Science and Engineering
 - Concentration in Structural and Functional Materials
 - Expected Graduation: May 2021
- Candidate for Master of Science in Material Science and Engineering
 - Expected Graduation: May 2022

Experience

Undergraduate Research Intern – Soft Robot Project, Georgia Tech Research Institute

May 2020 – July 2020

- Research into the creation of new actuation method for soft bio-inspired robot
- Formulated a new actuation method through linearizing a brushless motor
- Designed experiments and studies to test various performance issues of the actuation method

Undergraduate Research Intern – Automating CAD Systems, Georgia Tech Research Institute

May 2019 – July 2019

- Increased the efficiency of opto-mechanical design through programming and 3-D modeling
- Researched advancements in opto-mechanics through metamaterials
- Developed a series of customizable programs that automated various SolidWorks features such as FEA studies
- Assembled and tested the sensitivity of advanced LiDAR systems for both atmospheric and topological purposes

Assembly Technician, Flexible Materials Handling

May 2016 – Aug. 2016

- Manufactured and assembled steel conveyor belts through cooperation and teamwork with other colleagues
- Oversaw the production and quality of conveyor belt production

Skills & Abilities

Technical:

Optical Microscopy, Scanning Electron Microscopy, Additive Manufacturing, Soldering, Oscilloscope, Carbon Fiber/Epoxy Layups, Autoclave, Mechanical Assembly, Machinery (Waterjet, Lathe, Milling), Strength Testing, Grinding and Polishing, Surface Preparation

Software and Programming:

Solidworks, Siemens NX and Fibersim, Microsoft Excel, Python, Java, Matlab, HTML 5, JavaScript, Microsoft VBA

Concepts:

Ceramics, Ceramic Manufacturing, Metals and Alloy Manufacturing, Environmental Degradation, Nanostructures, Polymer Science, Polymer Extrusion and Manufacturing, Product Development, Thermodynamics, Structural Transformations, Metallography, Lithography, AC & DC Complex Circuit Analysis, Object-Oriented Programming, Numerical Methods, X-Ray Diffraction, Opto-Mechanical Design, Multi-Objective Optimization

Languages:

English, Spanish (basic), German (beginner)

Involvement

Sigma Phi Epsilon, Social Fraternity

Jan. 2018 – Present

- Mentor for multiple new members and current members seeking membership development
- Coordinator for outdoor recreation and captain for various intramural sports such as ultimate frisbee and indoor soccer

Georgia Tech Motorsports Team, Composites Subsystem

Sept. 2018 – Dec. 2019

- Researching into manufacturing efficiency and techniques of carbon fiber
- Advising other subsystems on different materials and manufacturing techniques
- Mechanical testing, data analysis, and quality control of chassis and aerodynamic parts
- Full development of carbon fiber parts for both the controls and aerodynamics of the car