Owen Hughes

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EDUCATION

Northeastern University **Boston, MA**
Mechanical Engineering, BS *Expected December 2021*
GPA: 3.51
Relevant Courses: Mechanics of Materials, Thermodynamics, Electrical Engineering, Fluid Mechanics
Activities: AIAA, SEDS, Intramural Volleyball

Cab Calloway School of the Arts **Wilmington, DE**
Activities: President of NHS, Eagle Scout, 1st Chair Clarinet All-State Band

SKILLS

Languages - MATLAB, Python, C++, Arduino
Design - SolidWorks(CSWA), AutoCAD, Unity
Shop - Laser cutter, CNC Mill, FFF 3D printing

ENGINEERING EXPERIENCE

Army Research Laboratory - Additive Manufacturing Engineer Co-op *January 2020 - August 2020*
- Developed a real-time optical control system to adjust flow rate of 3D printer to compensate for inconsistent filament diameter. Tools used: SolidWorks, Python
- Demonstrated system working for real parts: https://github.com/ohughes343/flow_rate_control
- Presented work to chemical engineering department at University of Delaware
- Conducted experiments on annealed strength of 3D printed parts

NIA RASC-AL Design Competition *January 2019 - May 2019*
- Researched space technology and designed parts for lunar surface habitat as part of the Lunar Gateway project
- Implemented new features into the design that advanced the team to the final round
- Simulated landings with advanced flight software

Raytheon Integrated Defense Systems - Hardware Quality Engineer Co-op *January 2019 - August 2019*
- Analyzed Wave and Selective Solder circuit card data for over 90,000 circuit cards to minimize defects
- Presented quality metrics at weekly tier meetings and drove root cause corrective actions
- Submitted change requests for circuit cards to eliminate design-related defects

NU ReGame-VR Lab - Undergraduate Research Assistant *January 2018 - May 2018*
- Programmed VR game in Unity to increase engagement for pediatric physical therapy
- Modeled a low-cost balance platform in SolidWorks to control the game
- Tested and improved gyroscope to ensure smooth gameplay

PROJECTS

Imaging Telescope *June 2018 - August 2018*
- Designed and 3D printed telescope with internet-connected camera
- Motorized telescope with servos to control angle
- Interfaced with Stellarium to track stars as they move to take long-exposure shots

Robotic Arm - Science Olympiad *September 2017 - May 2017*
- Designed and automated robotic arm to accomplish tasks
- Led team to win at state level for the first time

INTERESTS

Ham Radio (KB3WFP), Science Fiction, Space Photography, Backpacking, Mountain Biking