noahwilde@vt.edu

Summary

Senior studying mechanical engineering with leadership experience in mechanical design and systems analysis. Vice President for Orbital Launch Vehicle Team, launching a rocket to 100km apogee

Education

Virginia Tech, Blacksburg, Virginia

September 2018 – present

- B.S. Mechanical Engineering, Robotics and Mechatronics focus, GPA 3.2, expected May 2022
- Senior Design Team Facilitator for Team 15, Northrop Grumman Vacuum Rated Robot Arm
- Leading full design process for creating a vacuum rated, 6 DoF robotic arm capable of 3D printing in space

Design Teams

Orbital Launch Vehicle Team (OLVT), Vice President (2021-present)

September 2018 – present

- Collegiate team launching a 5kg payload into low earth orbit
- Previous Launch Operations subteam lead (Sept 2019 Jan 2021)
- Drove design and dynamic analysis of a 30ft launch tower capable of raising a 400lb rocket to vertical
- Experienced with various CAD software (SolidWorks, Inventor, NX) and FEA (SolidWorks Simulation)
- Created vehicle integration and launch procedures for subscale launch
- Co-created automated system for generating formatted procedures (Python, LaTeX)

Astra, Micro-g NExT Team

September 2018 – June 2019

- Virginia Tech freshman design team competing in NASA's Micro-g NExT design challenge
- Design, manufacture, and test of a camera mount for the ISS; presented in person at NASA's Neutral Buoyancy Lab in Houston, Texas
- CAD Chair, drove CAD design, analysis, and rapid prototyping

Work Experience

Yokohama Tire, Salem, VA

June 2021 – August 2021

- Mechanical engineering intern, 40 hours per week
- Designed, modeled, manufactured, and installed over 20 components across 6 main projects
- Solved complex problems for optimization and ergonomics while working within tight constraints
- Created comprehensive documentation clarifying design choices, component manufacturing and assembly, and the status of ongoing projects

U.S. Army Corps of Engineers, Alexandria, Virginia

May 2019 – August 2019

- Summer internship, 40 hours per week
- Developed software enabling a robotic platform to autonomously map and localize in 3D space (SLAM) using Linux with ROS as a primary tool
- Created weekly reports, coauthored a technical report, and created a final capstone presentation

Publication

U.S. Army Corps of Engineers Technical Report no. ERDC/GRL TR-20-6

"Optimized low Size, Weight, Power and Cost (SWaP-C) payload for mapping interiors and subterranean on an Unmanned Ground Vehicle" https://erdc-library.erdc.dren.mil/jspui/handle/11681/35878