

Griffin Abbott

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200 Pearl St., Ste. 1, Houghton, MI 49931

Fourth year mechanical engineering student interested in aerospace seeking a summer internship or co-op.

Education

B.S. - Mechanical Engineering

May 2023

Michigan Technological University (MTU), Houghton, MI **Cumulative GPA - 3.63 | Department GPA - 3.22**

Minor - Aerospace Engineering

Work Experience

Systems Engineering Co-op – Northrop Grumman Innovation Systems Jun. 2020 - present

Project: Landsat 9 Earth Observation Satellite

- Verified requirements for payload deck and structures and mechanism subsystem
- Located and reviewed verification documentation to satisfy customer requirements for Operational Land Imager 2 (OLI-2) and Thermal Infrared Sensor 2 (TIRS-2)
- Created and presented requirement change requests to Engineering Review Board
- Tracked requirement statuses and updated metrics for weekly customer reports
- Interfaced with customer on verification rejections and resolved them for resubmittal
- Created a Contract Data Requirements List on a 16 Day Design Reference Case of spacecraft operations based on a previous one for the Landsat Data Continuity Mission (LDCM)
- Supported spacecraft-level thermal vacuum integration and testing

Student Front of House Manager – MTU Rozsa/McArdle Theater Sept. 2021 - present

Theater Technician – MTU Rozsa/McArdle Theater Sept. 2019 - present

Virtual Reality Developer – WMU Office of Information Technology May 2019 - Aug. 2019

Broomball Committee Special Tasks – MTU Inter-Residence Housing Council Sept. 2021 - present

Project Experience

Chassis Subteam – Mining INnovations Enterprise | MTU Aug. 2020 - present

Project: NASA Robot Mining Competition: Lunabotics

- Designed and fabricated 3d printed dust covers for structural and drive-train components
- Assessed chassis structure for lunar regolith entry points and methods of sealing these points

Rocket Structures and Design – Keweenaw Rocket Range | MTU Sept. 2018 - Mar. 2020

Project: Radio systems for Intercollegiate Rocket Engineering Competition payload and ground station

- Lead on telemetry RF subteam for avionic systems
- Researched and implemented rocket transmitter and ground station receiver systems
- Worked on construction of fiberglass rocket body and payload enclosure

Project: Design and construct a rocket and launch system using only Alka-Seltzer and water for propulsion

- Designed rocket body and launch tube structures to accommodate payload and recovery systems
- Sourced construction materials for and constructed rocket body using fiberglass and 3D printed parts
- Designed launch tube rocket carriage and lubrication system

Flight Computer Design/Data Processing – HAB Research Project | KAMSC Jan. 2017 - May. 2018

Project: Design and build a high altitude balloon (HAB) to collect sensor data, pictures, and video, team of 4

- Researched sensor, camera, and computer components for use in balloon payload
- Soldered, configured, and calibrated sensors for temperature, pressure, radiation, and ozone concentration
- Wrote code for GPS tracker, radio transmission, and sensor measurement on an Arduino microcontroller
- Processed and analyzed sensor data for a paper and a presentation to the Kalamazoo Astronomical Society

Skills

Computer/Technical

Discrete Mathematics, Unity3D XR Development, Computer Assembly, Soldering, Apache Web Server Operation, NX, Fusion 360, 3D Printing, AMESim, MS Word & Excel, Rational DOORS, Adobe CC, AstroRT

Programming Languages – C#, C++, C, Java, Python, MATLAB, Rockstar

Markup Languages – HTML, CSS, \LaTeX

Technical Theater

Set Design/Construction, Sound Board, Stage Supervisor, Lighting, Puppets, Live Video, Genie Lift Certified

Co-Curricular Involvement

Pi Tau Sigma Mechanical Engineering Honor Society – Sigma Iota Chapter Member Nov. 2020 - present

Broomball – Off-campus Competitive League Dec. 2018 - present

Swing Club – Vice-President Apr. 2020 - present

Airsoft Club Sept. 2018 - present