

Griffin Abbott

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2627 Mockingbird Dr., Kalamazoo, MI 49008

Fifth year mechanical engineering student seeking a summer internship or possible full time position.

Education

B.S. - Mechanical Engineering May 2023
Michigan Technological University (MTU), Houghton, MI **Cumulative GPA - 3.53 | Department GPA - 3.07**
Minor - Aerospace Engineering

Work Experience

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

Project: Lunar Gateway Habitation and Logistics Outpost

- Assisted in preparation of slides for Critical Design Review of spacecraft interfaces
- Tracked and charted deviation of project milestones from contract deadlines for presentation to the customer
- Tracked and charted status of and changes to delivery dates for Government Furnished Equipment (GFE)
- Aggregated Decision Logs for GFE Leads into centralized master table using Confluence

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 the customer on verification rejections and resolved issues for resubmittal
- Created a Contract Data Requirements List on a 16 Day Design Reference Case of spacecraft operations based on the list used by 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 those points

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

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 – President Apr. 2020 - present

Airsoft Club Sept. 2018 - present