**Mason McGaffin**

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SUMMARY OF QUALIFICATIONS

* Experienced in Python, C, C++, CREO Parametric, System Verilog, Java, VECAMS, EPDM, SAP, MS Office Suite, Automation Framework, Visio, Arduino
* Software development for satellite real-time satellite data transmission
* Spacecraft test data mining and analysis for test optimization and risk management
* Spacecraft system schematic drawing utilizing connectivity data
* Preparing Manufacturing Work Instructions for box-level spacecraft electronics
* Bachelor of Electrical and Computer Engineering (Ant. 2026)

RELEVANT WORK EXPERIENCE

**Lockheed Martin Space**

Software Engineer Intern - RTS Fall 2023 – Present

* Created comprehensive customer focused Interface Developer’s Guide containing C++ and Python sample code, sample data, and system and subsystem overviews.
* Developed Python scripts to manipulate Gitlab pipeline and Regex variables.
* Produce code to fix bugs and implement improvements for Real-Time Transfer Service (RTS).

Manufacturing Engineer Intern - SEC/RAC Summer 2023

* Produced Manufacturing Work Instructions for multiple LM400 bus box-level electronics using VECAMS and MS PowerPoint.
* Designed tools using CREO Parametric to reduce connector tinning schedule time by over 70%.
* Developed a 50 page universal training guide for new employees to learn electronics manufacturing process from circuit card to top-level assembly.
* Installed and managed Thinaer tracking devices to improve traceability and assembly efficiency.

Mechanical Engineer Intern – Artemis/ORION Summer 2022

* Modeled connectivity data using Visio with team of LM & NASA interns, engineers, & subsystem managers to streamline connections and aid troubleshooting for Propulsion, Heater, Avionics Power & Wiring, and Command & Data Handling Systems
* Received Next Gen Recognition “Evolving Our Culture” Award for training Engineering Aide optimization of Visio and MS Excel for use in schematic design.
* Designed parts on Creo Parametric to be used for specific spacecraft testing that reduced cost while maintaining test validity

Mechanical Engineer Intern Summer 2021

* Intern Case Study: Led team of 5 interns to develop solutions to consolidate $20 million software tools budget and rationalization process across LM Space. Presented to Executive Vice Presidents a recommended path forward to implement solutions.
* STORM Program: Individual project supporting spacecraft system and test optimization. Utilized MS Excel, SAP, Automation Framework to mine, model, and analyze spacecraft data to promote improvements in the test process for spacecraft.

EDUCATION

**University of Colorado, Boulder** Anticipated Graduation: 2026

Bachelor of Science in Electrical and Computer Engineering; Minor in Computer Science

3.956 GPA, Engineering Honors Program

Relevant Course Work:

Computer Science 2: IMDb Top 1000 Movies: Created a database using Skip List and Hash Table with user interface to sort movies on numerous qualities – title, actors, year, …

Digital/Analog Electronics: The BeatSeat: Semester long design project to develop an Arduino system and electronic sensors to enable persons with physical and mental disabilities to play and create music.

Embedded Software Engineering: Embedded programming for ARM Cortex M4 microcontroller peripherals involving GPIO, Timer, SPI, I2C, and LCD touch screen peripherals using driver development, interrupt handling, and bit manipulations.