Jeffrey Morris

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Experience

Embedded Systems Engineer - *Freelance* — July 2024 - Present
- Design production and assembly ready Printed Circuit Boards using KiCAD EDA.
- Develop firmware for popular 32-bit microcontrollers using C / C++.
- Collaborate, communicate, and iterate over design requirements to produce optimal designs.
- Create and maintain comprehensive technical documentation for products.
- Manage project timelines and deliverables to meet deadlines.

Education

Tarleton State University - Stephenville, TX — May 2027
- B.S. in Electrical Engineering — Honors College
- Minor in Mathematics & Computer Science — Dean's List

Technical Skills

- Software: KiCAD, LTSpice, STM32CubeMX, VSCode.
- Programming: Git, C, C++, Python, Java, MATLAB.

Projects

ModMac - *Independent Project* — February 2026
- Endlessly customizable USB Human Interface Device (HID) controller.
- Uses Adafruit's *seesaw* interface to connect many input modules and present it to the computer as a single HID.
- Supports pre-made *seesaw* modules, as well as custom modules using the same protocol.

CANnect - *SWYFT Robotics* — January 2025
- Wiring solution for low-power & CAN interfacing devices over common Ethernet cabling.
- Reduces user wiring connections from many long routes to a single cable with short stubs.

Ranger - *SWYFT Robotics* — September 2024
- Precision LiDAR sensor for competitive robotics using analog or digital interfaces.
- Compact, mixed-signal, PCB using 32-bit microcontroller for data processing and interfacing.
- Technical documentation for usage and specifications of the device.

Extra Curricular

FIRST Robotics Competition - *Team 7125 - Tigerbotics*
- Provide and assist high-school students with hands-on experience designing, building, and programming competitive robots.
- Impress STEM skills and life lessons to students such as problem-solving, teamwork, leadership, and outreach.
- Innovate in mechanical, electrical, and software designs; teaching students iterative design skills