MICHAEL ZAUGG

Rexburg, ID 83440 | (971) 363-7694 | https://michaelzaugg.me | michaelzaugg01@gmail.com

Education

Bachelor of Science, Computer Engineering Dec 2026 (Expected)
Brigham Young University – Idaho Rexburg, ID
GPA: 3.71

Projects

Reversed Engineered Controller (Personal Project) Oct. 2024 – Present
Project Leader
https://github.com/MichaelZaugg/OpenSteamController-Continued/releases

- Led a 7-member open-source project team, helping peers in PCB design & analysis.
- Performed schematic capture, electrical rules validation, and board layout using KiCad design software.
- De-soldered 100+ passives, ICs, and connectors using a soldering iron and air gun.
- Measured component values using an LCR meter and Digital Multimeter.
- Applied knowledge learned in circuit analysis and low-level programming.
- Referenced datasheets for part sourcing and compatibility.
- Designed and prototyped custom FFC replacement cables for trackpads & haptics.
- Designed & 3D printed internal housing components with OnShape CAD design software.

Artillery System Project (Embedded Systems Course) Sept 2025
Semester Long Group Project

- Programmed stepper motor drivers for the STM32 in C programming language for turret rotation and firing.
- Worked with a team of 4 people to implement physics calculations, time of flight sensors, and firing mechanism.
- Implemented concurrent FreeRTOS tasks for target acquisition, firing control, and user input.
- Helped design and model the turret mounting system using OnShape CAD.

Robotics Team Projects (Robotics Course) July 2025
Team Leader

- Led a small team to complete various challenges regarding robotics and engineering.
- Programmed a weather station using an Arduino that displays temperature, humidity, and wind.
- Designed and built an automated driving robot with Arduino and off the shelf components.

Skills

Equipment: Oscilloscope, Digital Multimeter, LCR Meter, Function Generator
Electronics: Arduino, STM32, Op-Amps, BJTs, ADCs, Linux
Programming: C, C++, C#, Python, System Verilog, FreeRTOS
Software: KiCad, LTSpice, Logisim, Visual Studio Code, Microsoft Office, Altium
Other: Student Pilot, Eagle Scout

Other Notable Projects:

- Repurposed UAV's for Civil Air Patrol – *Team Project*
- Improvised Night Vision Using FPV Goggles – *Personal Project*
- Small Form Factor Smart Watch Using Arduino – *Personal Project*
- Developed a Mod Managing Application Using Python – *Personal Project*

References

Colin Farrier 503-812-7694
Associate Systems Test Engineer – Northrop Grumman

Luke Stahle 319-721-5104
Manufacturing Manager – Tillamook Creamery

Brief Work History

Fundamental Digital Systems TA Sept 2025 – Dec 2025
Brigham Young University - Idaho Rexburg, ID

Early Morning Custodian – Shift Lead Sept 2023 – July 2025
Brigham Young University - Idaho Rexburg, ID

Ice Cream Operator Jan 2023 - August 2024
Tillamook County Creamery Association Tillamook, OR