# MICHAEL ZAUGG

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## 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 & Schematic Designer*
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.

**Power Supply w/ Current Limit (Devices & Circuit Course)**       July 2025
*Course Final Project*

**-** Design, construction, and performance evaluation of a DC output power supply with built-in current limiting functionality.
**-** Performed schematic capture and analysis using LTSpice software.
**-** Achieved 3.83% error between measured and calculated current limit value.
**-** Calculated ripple rejection and characterized output voltage regulation w/ current limit.

**Robotics Team Projects (Intro to 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
**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

**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