

Brighton Anderson

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EDUCATION

Brigham Young University, Ira A. Fulton College of Engineering

Bachelor of Science, Computer Engineering with a focus in robotics

Apr 2027
Provo, UT

- GPA: 3.87/4.00
- Related Coursework: Embedded Systems, Digital Systems, Computer Systems, Circuit Analysis.
- Published research on novel systems for autonomous underwater vehicles.

SKILLS

- Languages: Python, C/C++ .
- Software Tools: ROS2, Docker, KiCAD, Git, Linux, Gazebo Simulation.
- Hardware & Electronics: PCB Design, Sensor Integration, Circuit Analysis.

RELEVANT EXPERIENCE

Brigham Young University

Research Assistant

Apr 2024 - Present
Provo, UT

- Engineered a containerized software architecture using Docker for a ROS2 autonomous system to streamline deployment and ensure reproducible performance in field tests.
- Developed a custom sensor driver for a Doppler Velocity Log, and a Zigbee RF module using C++ to interface the sensors with the ROS system, enabling accurate data collection and communication.
- Developed a custom mission planning program that automated waypoint plotting, reducing mission setup time and improving navigational tracking accuracy for the AUV fleet to within 4-5 meter radius of the planned path.
- Designed custom PCBs using KiCAD to step down voltage, power a Raspberry Pi, and integrate Depth, IMU, GPS, Sonar and other sensors into the Autonomous Underwater Vehicle.

BYU Agricultural Robotics Club

Software Lead

Aug 2024 - Jul 2025
Provo, UT

- Architected and led the development of a containerized software system using ROS2 and Docker for an autonomous egg-sorting robot.
- Designed a custom PCB for the robotic mainboard and sourced all electronic components.
- Created multiple PID controllers for different robotic actions within a nested state machine.

PERSONAL PROJECTS

- Currently developing a fleet of 5 AUVs for underwater localization research.
- Architected and deployed ROS2 software for an agricultural robotics competition vehicle.
- Designed, built, and tested 3 custom robots (2 for combat, 1 light-following) using Arduino, meeting strict design specifications and deadlines.
- Built a custom smart doorbell using raspberry pi.

INTERESTS

Workflow/Home Automation, 3D-Printing, Raspberry Pi/ESP32/Arduino, Machine Learning, Golf, Wake Surfing, Biking, Basketball.