

BRIAN BASCOM

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EDUCATION

Brigham Young University

Bachelor of Science in Computer Engineering

Minor in Computer Science and Mathematics

GPA: 3.98/4.00 (Major: 4.00)

Honors & Awards: Russell M. Nelson Presidential Scholar, National Merit Scholar, Honors Program

Relevant Coursework: Computer Systems, Embedded Systems, Data Structures, Algorithms

In progress: Electronic Circuit Design, Signals & Systems, IP Law Fundamentals

Provo, UT

April 2027

SKILLS

Languages C, C++, Python, Rust, Java

Developer Tools Git, VS Code, Linux, Docker, CMake

Hardware & Lab Raspberry Pi, UAVs, STM32 Microcontrollers, KiCad

Software PyTorch, JAX, ONNX

EXPERIENCE

Undergraduate Research Assistant

BYU Multiple Agent Intelligent Coordination and Control (MAGICC) Lab

Provo, UT

April 2025 – Present

- Selected for the IMMERSE program, an undergraduate research initiative focused on developing long-term research skills and leadership.
- Investigated the Burn machine learning framework for importing ONNX neural network models from PyTorch and JAX.
- Developed and ran tests using a custom ROS2 package to validate MAVLink communication protocols for the lab's rust-based UAV firmware.
- Implemented key modules for the flight mode finite state machine focusing on the state transition logic and error handling under the direction of a graduate researcher.

PROJECTS

Custom Split Keyboard | *Microcontrollers, PCB Design, SMD Soldering*

Fall 2024 – Winter 2025

- Contributed to the PCB layout modifications for a 36-key ergonomic split keyboard as part of an IEEE student group project.
- Assembled the keyboard, including soldering all components and programming the controller with custom keymaps.

Raspberry Pi Smart Doorbell Demonstration | *C, Raspberry Pi*

Summer 2025

- Developed a smart doorbell system using a Raspberry Pi Zero, camera, and LCD display for a Computer Systems course project.
- Independently redesigned the project for new student orientation, creating a polished demonstration with a custom acrylic enclosure and new C software to showcase system features.

LEADERSHIP & ACTIVITIES

Secretary, IEEE Student Branch at BYU

April 2025 – Present

- Manage all official communications, record minutes, and organize weekly meetings.
- Coordinate with department staff to plan student events, including two annual department-wide barbecues.
- Facilitate student-led technical projects, including a community outreach initiative to promote STEM education.

Full-Time Volunteer Representative

The Church of Jesus Christ of Latter-day Saints

Manchester, England

May 2022 – May 2024

- Directed planning, goal setting, and training for teams of 10-50+ volunteers, coordinating efforts across a wide geographical area.
- Mentored volunteers through weekly 1-on-1 sessions focused on skill development, performance improvement, and personal accountability.