Brayden Currier

West Covina, CA | (949) 835-6681 | braydenjcurrier@gmail.com
BraydenCurrier.com

Education:

Cal Poly Pomona

Bachelor of Science in Computer Engineering
Expected date of graduation, December of 2025

Projects:

- Implemented ORB-SLAM3 with an Intel RealSense D435i depth camera to perform real-time 3D mapping and localization. Successfully built and tested the system in various environments and am currently optimizing algorithm parameters to improve pose estimation accuracy and mapping reliability.
  https://braydencurrier.com/project-orb

- I designed and implemented a lightweight custom communication protocol to send messages from a Raspberry Pi to an Arduino using only two wires: one for clock and one for data. The protocol includes start/stop flags, byte encoding, and character translation for ASCII-like messaging.
  https://braydencurrier.com/project-comm

- I designed and implemented a DC-to-DC buck converter using an LM2596-ADJ regulator for efficient voltage regulation from 12 V to 9 V. Developed a schematic and 2-layer PCB layout in KiCad, integrating power filtering and feedback resistors.
  https://braydencurrier.com/project-pcb

Skills:

- Strong understanding of C++, C#, and Python
- Visual SLAM
- Programing microcontrollers using C and assembly language
- PCB design in Altium and KiCad
- Programing FPGAs in Vivado using Verilog
- Digital logic design
- Fundamental knowledge of UART and I2C protocols
- Use of oscilloscopes and logic analyzers