



Description: Electrical Engineering/Hardware Design Internship/Co-op

Job Purpose: As a part-time Electrical Engineer at ANZE Suspension, you will play a key role in the design, development, and testing of innovative products throughout their lifecycle. Leveraging your knowledge in hardware design, you will create new printed circuit board (PCB) prototypes and enhance device firmware for data acquisition and processing systems, as well as IoT devices in sports cars, drag racing, and autocross.

Core Responsibilities

- **New Product Development:** Design and develop printed circuit boards (PCBs) for innovative devices, ensuring alignment with project specifications.
- **Data Acquisition Systems:** Code and integrate data acquisition hardware that interfaces with various sensors, enabling data visualization and analysis.
- **Signal Conditioning:** Understand signal conditioning circuitry, including amplification, attenuation, isolation, and filtering, to prepare sensor outputs for digital processing.
- **Analog-to-Digital Converters (ADCs):** Familiarity with ADCs and their role in converting conditioned sensor signals into digital formats for processing.
- **Firmware Integration:** Collaborate on identifying opportunities for firmware enhancements and assist in integrating firmware with hardware components.
- **Sensor Understanding:** Demonstrate knowledge of sensors that convert physical parameters (light, sound, temperature) into electrical signals (voltage, current).
- **Documentation Review:** Read and comprehend technical documentation and reference manuals to support product development.

Qualifications

- **Circuit Design:** Basic understanding of circuit design principles, including both analog and digital circuits & software used to develop these (Altium/KiCAD etc.).
- **Testing & Troubleshooting:** Assist in testing prototypes and troubleshooting issues related to hardware and firmware integration.
- **Software Proficiency:** Familiarity with programming languages (C/C++) and tools used in embedded systems development
- **Project Management Skills:** Basic understanding of project management principles to help track progress and meet deadlines.
- **Communication Skills:** Strong written and verbal communication skills to articulate technical concepts clearly.

Educational Background

- Pursuing a degree in Electrical Engineering, Computer Engineering, Computer Science or a related field, with coursework or projects relevant to embedded systems, electronics, or signal processing.

Angelo Zarra
President