Cole Fuerth

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EXPERIENCE

University of Windsor Jan. 2022 – Present
Research Assistant Windsor, ON

- Assisted masters students in developing data collection tools for the study of Battery Management System (BMS) performance.
- Made a dynamic interface between I2C/UART on Arduino and Python over USB using JSON packets, allowing for real-time data collection and analysis.

Centerline Ltd. May. 2019 – Sept. 2020
Controls Engineering Technician Windsor, ON

- Set-up and debugged industry-standard production machines.
- Programmed Rockwell PLCs, FANUC robots, and various other misc. industry devices.
- Integrated new industry devices with PLCs, such as date scribes, torque units, and cameras.

PROJECTS

Electric Motorcycle

- Programmed and assembled an electric dirt-bike.
- Assembled using an **Arduino Mega** for control with **C++**, a touchscreen display, custom aluminum panels, isolated inputs and outputs, and **all-custom power distribution and analog sensing**, mounted on a stripped frame.
- This project was my capstone for Electronics Engineering Technology.

Air Suspension System

- Designed firmware and interface, assisted in choosing hardware and sensors for an Air-Ride suspension system for vintage cars.
- Device had active telemetry, height and PSI modes, and user profiles.
- Firmware done in **C++** on an **Arduino Micro**; User display written in **Python** on a **Raspberry Pi**.

Electric Long-boards

- Electronics enclosure designed and 3d printed, with custom wiring.
- Batteries are a **completely custom design**, built with 21700 Lithium cells.
- **Won first place** in the hardware category at WinHacks 2021, by passing telemetry over **UART** from the ESC to a **Raspberry Pi**.

EDUCATION

University of Windsor Sept. 2020 – Present
Computer Science (Honours) Windsor, ON

- Coursework: C/C++ Programming, Differential Calculus, Assembly, Python, Java, Data Structures & Algorithms, Systems Programming (Linux with C), Software Engineering, AI Concepts
- **89% Major Average**; received Dean's List for most recent completed class year.

St. Clair College Sept. 2017 – May 2020
Electronics Engineering Technology, Associate Degree Windsor, ON

- Coursework: DC and AC circuit analysis, analog signals processing, digital systems, C language and PLC programming, microprocessor, and micro-controller programming
- **3.9 Cumulative GPA**; received the Student Leadership Award for graduating class year