Aryan Aryal

780-802-4642 | aryal2@ualberta.ca | linkedin.com/in/aryanaryal | aryan.arvp.org

EDUCATION

University of Alberta   2023-2027
BSc. Electrical Engineering Co op

    Courses: Embedded Systems, Discrete Time Signals and Systems, Electromagnetics, Intro to Microprocessors

    Availability starting January 2025: 8 months

TECHNICAL SKILLS

Languages: Python, C/C++, HTML, CSS, Java, LaTeX
Tools: Altium, KiCAD, EPLAN, Arduino, Git, Linux
Hardware: Oscilloscope, Waveform Generator, Soldering Iron, PCB Mill, 3D Printer, Laser Cutters

EXPERIENCE

Electrical & Automation Research Assistant   May 2024 – Sept 2024
Modular Construction Research Group   *University of Alberta*

- Designed and implemented Human Machine Interfaces using Vijeo Designer, SoMachine, and custom automation scripts in Java for real-time production visualization, critical system alarms, and operator dashboard.
- Created schematics using EPLAN for automation solutions, incorporating power distribution, control, and I/O.
- Maintained comprehensive design documentation, including schematics, calculations, and technical specifications.

Electrical Team Member   Sept 2023 –
Autonomous Robotic Vehicle Project   *University of Alberta*

- ARVP is a student-led engineering design team at the University of Alberta; the goal is to design an autonomous underwater vehicle to compete at the international RoboSub Competition.
- Led two others in designing a PCBA for streamlined pressure, temperature, and mechanical system testing.
- Redesigned voltage converter PCBA with DC-DC buck converters to step-down voltage for various subsystems.

Utilities Infrastructure Engineering Student   Jul 2023 – Aug 2023
City of St. Albert   *St. Albert, AB*

- Coordinated project timelines and resources, ensuring on-time delivery and effective stakeholder communication.
- Implemented digital reporting processes for site inspection, replacing paper-based methods to enhance database management and efficiency by ~50%.
- Authored training documentation on my improved inspection and reporting process for future employees.

PROJECTS

Personal Website | *Astro.js, HTML, CSS, Javascript*   Mar. 2024

- Developed a mobile-responsive website to house my personal projects and blogs.

Medication Tracking App | *Arduino, C, Python, Google Workspace API*   Jan. 2024

- Worked on a team across 24 hours through the engineering process, from ideation to prototyping.
- Built a medication tracking mobile app integrated with a physical pill box.
- Implemented reoccurring notifications synced with an OLED screen programmed with C on Arduino and ESP8266.

Mechanical Keyboard | *KiCAD*   Dec. 2023

- Designed a keyboard which implements mechanical switches, OLED screen and rotary encoder.
- Integrated a interchangeable Pro-Micro microcontroller which handles N-Key Rollover, screen, and encoder.

EXTRACURRICULAR

Vice President, Communications | *Electrical Engineering Club*   Sept. 2023 – Present

- Lead design for various events and managed the club discord server for over 280 members

Additional Info | *Licences and Certificates*

- Class 5 Advanced Driver's Licence
- Electrical Engineering Club Certificate in Hardware Design
- Drone Operations Licence