Aleksandar Cridge

✉ acridge3@gmail.com — ▪ (604)-831-9533 — in linkedin.com/in/aleksandarcridge

Education

The University of British Columbia (UBC) — B.A.Sc. Electrical Engineering · September 2021 – April 2026

Experience

Weatherhaven · July 2025 – October 2025

Engineering Student
- Designed 3D CAD of TRECC military shelter in Autodesk Inventor/3ds max, in coordination with engineering team.
- Performed onsite dimensional survey of TRECC shelter, capturing as-built measurements and verifying clearances.
- Built 3D web-configurator (Next.js, TypeScript, CSS/HTML) and deployed on Vercel with GitHub CI/CD.
- Implemented interactive 3D viewer with colourways and deployment states; multilingual (i18n) support.
- Built and integrated a Request Quote module that routes submissions directly to the sales team.

AdMare BioInnovations · June 2024- August 2024

Equipment Co-op Student
- Disassembled liquid chromatography mass spectrometry systems, salvaging parts worth $9.7k.
- Restored out-of-service slide labeler by configuring the control code, and aligning linear actuator.
- Updated online inventory/serial number database and organized equipment room, using Worksafe BC rules.

FamilyCare Pharmacy · May 2023 - August 2023

Pharmacy Assistant
- Created order management system using digital scanning, saving 2 hours per day in manual order logging.
- Assisted in starting new pharmacy in Langley, BC, bringing new clients from the surrounding area.
- Attend to customer needs with colleagues, fill prescriptions and process purchases using pos system.

Projects

Brushless DC Motor — (LTSpice, Fusion360) · March 2025
- Designed and prototyped BLDC motor with 3-phase wye-configured stator and 4-pole neodymium rotor, optimized for magnetic flux linkage.
- Optimized rotor geometry and magnet placement to ensure balance and minimize vibration at high speeds.
- Integrated 40A ESC and Fly Sky FS-T6 transmitter for wireless speed control and dynamic system testing.

Motion Activated Digital Alarm Clock (ARM Tiva LaunchPad, Energia, C++) · October 2024
- Designed a digital alarm clock with touchless control using ultrasound sensors for precise motion detection
- Programmed the ARM Cortex M4-based Tiva LaunchPad development board in Energia
- Implemented automatic brightness adjustment, using light sensor based on ambient lighting

OK Motorsports (Extracurricular) — ELECTRICAL TEAM MEMBER · September 2022- April 2024
- In charge of wiring harness design of car. Team placed top 3 of Canada.
- Designed Exhaust Gas Temperature Sensor – RG TC8, ASL606-5SN, K-Type thermocouples, and Wideband Oxygen setup (LTC/ DTM-4 connectors). Ensuring seamless CAN and power integration.
- Designed EGT sensor calibration system, increasing responsiveness by 39%.
- Researched steering harness designs for MK 4 car.

Machine Learning Neural Network Car — (Python, Raspberry Pi, Keras) · January 2023- April 2023
- Created neural network for deep learning car model using keras, Python library on Google Colab.
- Trained a CNN on steering-angle dataset to enable autonomous lane-following from Pi camera input
- Coded Convolutional and Dense layers, optimizing kernels to minimize parameters and validation loss.
- Achieved lowest (MSE) validation loss in the class - 69.9757.

Technical Skills

Programming:	Python, Matlab, Simulink, HTML/CSS, C++, ARM Assembly, System Verilog, RStudio
Design Tools:	Autodesk Inventor, 3ds Max, Solidworks, LTSpice, Cadence, Altium, Autocad electrical
Software:	Microsoft Office (Excel, Word), Adobe Suite, CATIA, Fusion 360, PSIM, ETAP, GIS
Electrical:	DMM, Power Systems, Microcontrollers, Soldering, PCB Design