


Nolan Kurylo

 (403) 809-2980

 Vancouver, BC

 kurylon@telus.net

 <https://nolankurylo.github.io/>



EDUCATION

Bachelor of Software Engineering (Co-op) - University of Victoria

September 2017 – September 2022 (Expected Graduation)

- 4th Year, Cumulative GPA – 8.2/9 (3.9/4)
- Currently specializing in *Data mining and analysis, artificial intelligence, and machine learning*



SKILLS

Technical

- Programming in C, C++, Python, Assembly, MATLAB, SQL, No-SQL
- Soldering and testing PCBs; circuit design
- Interpreting hardware schematics
- Embedded programming with Arduino Uno, ESP32, Raspberry Pi, Atmega 2560, STM32F0
- Experience with LINUX/UNIX systems, Git, CI/CD, AWS IOT, Docker, Kubernetes
- Understanding and implementation of data structures and algorithms
- Strong interest in firmware design for embedded applications

Workplace

- Ability to self-learn with minimal supervision
- Manage and coordinate various software departments
- Capable of writing concise, technically based reports
- Experience working in individual and group settings
- Able to think critically and analytically to solve problems
- Highly self-motivated and self-directed
- Proficient with Microsoft Office Suite (Word, PowerPoint, Excel)



PROFESSIONAL DEVELOPMENT

More detailed project descriptions and code available at personal website linked above

- Designed a C-based embedded application on STM32F0 to output to an LCD the frequency and resistance of a square wave input signal of a peripheral potentiometer
- Developed a real-time embedded system to control an LED Strip using Arduino Uno and ESP8266
- Using a Raspberry Pi, PIR motion sensor and camera, developed a security application that uploads a video clip of the detected movement to a webpage
- Designed an embedded application via ATmega2560 Arduino of a Collatz sequence calculator. Controlled by buttons and displayed through LCD shield via timer interrupts and the ADC converter
- Created an Arduino-based clock that displays the time/date on an LCD display. Clock updates in real-time corresponding to timer driven interrupts and the I2C communication protocol.
- Created a Full Stack mobile app to manage IOUs between friends, using Node.js, React Native and PostgreSQL



WORK EXPERIENCE

More detailed project descriptions available at personal website linked above

Software Engineering Team Lead, Part Time – Inventu Research, Victoria BC

September 2020 – August 2021 (Current)

- Managing project milestones and developers for web development, embedded electronics and mobile app development projects through Kanban methodology (while taking a full course load)
- Aiding in implementation for ongoing projects, integrated CI/CD pipelines using AWS IOT, Kubernetes for various Git repositories, implemented company branching structure

Embedded Engineering Co-op – Ergonomyx Technologies Canada, Victoria BC

May – August 2020

- Designed, programmed and tested embedded applications in C/C++ for ESP32
- Implementing Bluetooth, Wi-Fi, MQTT, ADC, UART/I2C protocols for peripherals
- Programming interrupts and OTA firmware updates within constrained memory
- Soldered and tested PCBs; aided in circuit design to improve hardware

Full Stack Web Developer Co-op – Ergonomyx Technologies Canada, Victoria BC

January – August 2019

- Via Agile: designed, programmed and tested a ground-up, Full Stack e-commerce website
- Implemented a RESTful Node.js API to query a PostgreSQL database and serve a Python front end
- Provided API and SQL development for electronics and the mobile applications



PERSONAL DEVELOPMENT

- Played two years of junior hockey, which included various volunteering assignments
- Coached young hockey players for Hockey Canada over several summers
- Maintaining optimal physical shape by working out, playing hockey and cycling



AWARDS

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|---|-------------|
| • SGI Corporate Scholarship | 2019 |
| • Alexander Rutherford Scholarship | 2017 |
| • University of Victoria Entrance Scholarship | 2017 |
| • Honors with Distinction (High School) | 2013 – 2016 |



REFERENCES

Contact information available upon request

- **Sergio Perez** – Engineering Lead, Ergonomyx Technologies Canada, Victoria BC
- **Stephen Steel** – Franchise Owner, Benjamin Moore, Canmore AB
- **Joe Aiello** – President, EdgeTech Computing, Calgary AB