Wilson Scott

wilwscott@gmail.com | linkedin.com/in/wil-scott | github.com/wil-scott | wil-scott.com

Technical Skills

Software Development:

Languages: C, Python, C++, Java, JavaScript, HTML, CSS

Concepts: Low level drivers, device drivers, bootloaders, hardware interrupts, timers, ISRs, HAL

Hardware Development: Atmel AVR, ARM Cortex-M, ESP8266/ESP-01, UART

Development Tools And Environments: Vim, Git, Github, Jira, Jenkins, Linux

Build Tools: Make, GCC, AVR-GCC, Yocto, Bitbake

Standards and Protocols: I2C, Serial (RS-232), AT Commands, REST, XML, JSON

Other: Conflict resolution, written and verbal communication, resource management, research and analysis

Experience

Embedded Software Engineer Co-op, Sierra Wireless – Richmond, BC May 2022 – December 2022

- Wrote a Python tool to automate recovery of failed devices from the factory production line that reduced the time necessary to recover devices to default settings.
- Created a command-line Python tool using the Jira REST API for easily creating, updating, and retrieving ticket and issue tracking information to better integrate Jira into general ticketing workflow.
- Tested and debugged a Yocto recipe to ensure compatibility of the compiled image with new hardware.
- Optimized documentation used by factory workers for debugging production line issues by simplifying the document format and implementing a plain language approach to technical content.

Counsel, Murphy & Company LLP – Vancouver, BC January 2019 – September 2021

- Managed time-sensitive matters for clients on issues ranging from pre-litigation disputes to contractual negotiations while working within client budgetary constraints.
- Regularly conducted research into legal issues, legislative updates, regulatory compliance issues and court decisions affecting clients.
- Negotiated and drafted all manners of corporate documents including service agreements, shareholder agreements, asset purchase agreements, and various corporate governance filings.
- Provided mentorship to junior staff and articling students while managing a full caseload of 5-20+ matters.

Director, Woodsons Law Corporation – Vancouver, BC October 2017 – January 2019

- Co-managed a 30+ year legal practice with $500,000+ in yearly revenue.
- Directed staff and coordinated business operations including client intake and customer management.
- Ensured business practices adhered to Law Society guidelines.
- Provided counsel on corporate governance matters, shareholder relations, and annual filing requirements.

Projects

Tabletop Vehicle github.com/wil-scott/autonomous-vehicle-project

- Designed a vehicle powered by two DC motors able to detect and avoid edges using an HC-SR04 distance sensor.
- Created a vehicle chassis capable of supporting two DC motors, an L293D module, an Arduino Uno/ATMEGA38p, an ultrasonic sensor, an OLED screen, and a 9 volt power supply.
- Designed and implemented a schematic connecting each peripheral and powering the vehicle.
- Wrote an I2C driver from scratch in C using ATMEGA328p's TWI module for communicating with onboard OLED.
- Wrote a bare-metal C driver for the HC-SR04 ultrasonic distance sensor from scratch, using the ATMEGA328p hardware interrupt pins to accurately measure the distance between the sensor and the nearest surface.
- Wrote a bare-metal C driver for the OLED screen to display status and distance measurements in real time.
- Created a Makefile to streamline compiling and flashing of program code via the AVR-GCC toolchain.

IoT Environment Monitoring Device bcit-reseach-long-term-issp.github.io/

- Worked as part of a multidisciplinary team to build an IoT device for real-time data collection capable of measuring changes to water quality and current speed.
- Refactored a pre-existing C codebase to C++ while maintaining code functionality and improving code portability.
- Planned and implemented a circuit capable of supporting 7 different sensors using the Arduino Zero platform.
- Coordinated re-design of circuit and codebase to facilitate change from Arduino Zero to Arduino Mega, including updates to the GPIO mappings in C++ code.
- Wrote detailed handover documentation outlining code refactoring, schematic design updates, and summarized the remaining deliverables for future teams.

Education

British Columbia Institute of Technology – Computer Systems Technology Diploma December 2023

University of British Columbia – Juris Doctor (Law Degree) May 2016

Trent University – Bachelor of Business Administration, Honours May 2013

Memberships

Law Society of British Columbia, Member May 2016 - Present