



NOLAN CAISSIE

Portfolio: <https://www.nolans-space.tech/>

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education

Bachelor of Engineering, 4th Year
September 2018 - Present
University of Victoria
Victoria, BC
Electrical & Computer Engineering

Fundamentals of Engineering Certificate
September 2015 – April 2017
Vancouver Island University
Nanaimo, BC
General Engineering

notable skills

operating systems

Windows home use, VS code for HTML/CSS/PHP/JavaScript/git/C++, MS Excel for data visualization

Fedora developing C++ in custom SDE, building C++ with CMake, git, shell scripting

Ubuntu wireshark, shell scripting (wrote shell script for domain name information gathering tasks)

Debian Debian 9 for "IoT" gas well automation using Node-Red on Moxa UC-8112-ME-T, raspbian for home "IoT automation"

programming languages

C++ examples include fast food ordering system and a homework tracker, currently taking an advanced C++ course at UVIC, embedded C

Python CNN's for image classification, image processing, concatenation of excel files, machine learning

HTML/CSS/JavaScript/PHP Portfolio website

MATLAB machine learning, signal processing, general computational tasks

AVR Assembly Embedded temp/humidity project

electrical & embedded

AVR
Microcontroller

Arduino

PLC

Software-Defined
Radio

Raspberry Pi

STM
Microcontroller

FPGA

PCB Design

Soldering

Moxa UC-8112-MET

sample projects

Tracking ADS-B Signals with DIY Antenna, SDR & Raspberry Pi

Sept-Dec 2020

<https://www.youtube.com/watch?v=pkLHKgl7H8Y>

<https://nolans-space.tech/airplanettrackingpost.html>

- ✓ Raspberry Pi and PiAware
- ✓ DIY coaxial collinear antenna
- ✓ Signal filtering and amplification
- ✓ Software-defined radio

STM Microcontroller & I/O Interfacing with Embedded C

Sep – Dec 2020

https://nolans-space.tech/Embedded-C_Report.pdf

- ✓ Programming of STM32F051 microcontroller with embedded C
- ✓ Interfacing with potentiometer, LCD, NE555 timer, 4N35 optocoupler
- ✓ Configuration of internal peripherals (general purpose timer, external interrupt controller, DAC, ADC)

MP3 Alarm Clock

May – Aug 2019

<https://www.youtube.com/playlist?list=PLqM5bz4H7e4sDHnIIrxYSiGvRjHj59EPw>

- ✓ Programming of STM407 microcontroller with embedded C
- ✓ Use of ASIC for amplification
- ✓ KiCad for circuitry design and PCB

AVR Microcontroller & I/O Interfacing with AVR Assembly

Jan – April 2018

<https://www.youtube.com/watch?v=jlfD8sYxFgE>

https://github.com/Nolan-Walker/Embedded_AVR_Assembly.git

- ✓ Assembly programming of ATmega2560 microcontroller
- ✓ Interfacing with LCD, buttons, and LED's
- ✓ Configured external interrupts and implemented a random number generator

work experience

Ovintiv Inc. (formerly Encana Corporation)
2020

Nov 2019 – April

Electrical, Instrumentation & Control Intern

<https://youtube.com/playlist?list=PLqM5bz4H7e4s77zwLqlw4QeNE70ozXpBZ>

<https://nolans-space.tech/Efficient%20Well-Scheduling%20&%20Automation.pdf>

- ✓ Weekly flights between Calgary and Grand Prairie to work with the Automation team
- ✓ Interfaced a Moxa UC-8112-ME-T "IoT" gateway with a SCADAPack 334 rPAC to automate gas well scheduling using Node-Red
- ✓ Prepared a company approved YouTube tutorial on the Moxa automation project
- ✓ Provided solutions for E, I&C projects through drawing revisions, control narratives, and site visits
- ✓ Retrieved relevant data from SCADA system to create autonomous sales flow and process performance reports in MS Excel
- ✓ Developed a Python program to concatenate MS Excel files for data analytics
- ✓ Updated company installation documentation
- ✓ Attended weekly progress meetings with senior engineers in the Technical Services department

Yates Street Taphouse/Old City Station Pub
Bartender

2016-2018

Logging Trailer Manufacturing/Window Manufacturing & Install/Construction & Hazmat
Machine operator and sandblaster, window glazer, carpenter, asbestos abatement worker

2013-2017

References available upon request