Erik Langille

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Professional Experience

Motorola Solutions

Software Engineer (Systems) Co-op/Intern
Jan – Aug 2021

Video Security & Analytics - Avigilon —
- Reduced time to diagnose system bottlenecks in the C++ codebase by revamping load testing of the stack (cameras, recording appliances, video management software) to be automated using Python and C#
- Improved the organization of data by redesigning team internal reporting using web technologies (HTML, CSS, Python, Flask)

Prince Rupert Port Authority

Data Analytics Co-op/Intern
May – Dec 2020

Digital Business Division —
- Increased data reliability, reduced server load, and saved more than 10 hours of administrative work per week by designing a SQL data warehouse solution with C#
- Informed executives about a new proposed revenue structure by building map charts using Jupyter notebooks with Python and Matplotlib

Education

University of British Columbia

BASc Electrical Engineering
Sep 2017 – April 2022

Emphasis on computer science classes including data structures, algorithms, deep learning, statistics, and computer architecture

School Extracurriculars

UBC CIRRUS Lab

Reducing the cost of cloud functions in AWS by creating a machine learning model to predict price per application with the UBC CIRRUS Lab

UBC Solar Software Team

Optimizing performance of UBC Solar's racecar by designing a Python race simulator with focus on Bayesian optimization and CI/CD development

Side Projects

Full Stack Personal Website 🔗
- Conveyed compelling stories with a custom designed blog featuring Markdown support and image uploading built with NextJS, NodeJS, and PostgreSQL
- Dynamically created new user content secured with a custom login system using JSON web tokens and React Hooks

Dynamic User Portfolio Website 🔗

For uOttaHack 2021 Hackathon —
- Emphasized the story of a user's project from ideation to outcome by implementing a full stack focused portfolio
- Presented dynamic content by designing the app in TypeScript with a Node.js backend and a frontend in React

Elderly Communication App 🔗

For Hack the North 2021 Hackathon —
- Focused on reducing loneliness in elderly family members by providing them a presentation of tailored photos and messages from their relatives
- Designed simple, user-focused elements in Figma and implemented the design in React with a Node.js backend and a SQL Server database

Time Management Mobile App 🔗
- Increased personal time management by prototyping a multi-platform mobile app in Adobe XD and building it in Flutter
- Implemented account functionality and cloud data storage developed using Firebase's Authentication and NoSQL database solutions

Languages

Python, C#, SQL, JavaScript, TypeScript, HTML5, CSS. Some experience with Dart, C, C++, Rust

Technologies

Pandas, Matplotlib, Flask, Docker, Selenium, SQLite, SQL Server, PostgreSQL, React, jQuery, Next.js, Node.js, Figma, Sass, Flutter, Redux, Firebase