Michael Huang

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Work Experience

Full Stack Software Engineer

GrainFox

10/2022 - 09/2023

- Developed industrial Agri-Tech solutions serving 5k+ users following an agile framework using a Vue.js and Django Stack.
- Integrated DataDog as a cloud monitoring solution to decreased system down time and bug-fix time by up to 90%.
- Implemented and maintained 25+ services, features, and components with corresponding test procedures.

Software Developer

MapaRobo

10/2021 - 03/2022

- Architected a cross platform app to enable machine localization using React Native and Google Maps Platform.
- Established remote control capabilities via WebSocket and ROS to enable real time tracking and controlling capabilities.
- Worked closely with product manager, engineers, and designers to refine product requirements via user story.

Control Engineering Co-op

Ballard Power Systems Inc.

01/2020 - 08/2020

- Upgraded SCADA systems and HMIs using LabVIEW to advance industrial Fuel Cell test station performance.
- Migrated legacy C# DLL functionalities to improve Historian InSQL database connectivity.
- Automated test station reporting using Excel and generated comprehensive documentation to provide stakeholders with regular updates on efficiency and consumption.

Control Technician Co-op

Northwest Tech-Con Systems Ltd.

05/2018-08/2018

 Optimized sump pump manufacturing process to reduce downtime and ensure continuous production.

Outreach Robotic Instructor

Sticks and Stars

06/2016 - 07/2017

 Inspired and mentored over 25 students/cohort in a collaborative project-based competition setting on the application of code and robotics using LEGO Mindstorm.

Projects

Supervised Algorithmic Stock Trader

Personal Winter 2022

 Engineered a data pipeline, overseen back testing strategy development, and integrated GUI using Python to enable high frequency trading via Interactive Brokers.

Skills

Specialties

Googling, Full Stack, Web Development, Mechatronics, GUI/HMI, SaaS

Languages

Python, JavaScript, TypeScript, SQL, HTML/CSS, Rust, Markdown, C++, Ladder logic, English, Chinese Mandarin

Frameworks / Libraries

Full Stack: Vue.js, Next.js, React, React Native, Django, Tailwind CSS, Jest, Redux, Selenium, Playwright

ML/AI: Pandas, NumPy, Matplotlib, Scikit-Learn

Software / Tools

NoSQL, Git, Docker, Confluence, Jira, Google Cloud Platform, Google Map Platform, Firebase, SendGrid, Netlify, Vercel, LabVIEW

Hardware

SCADA, PLC, Beckhoff TwinCAT, Siemens, Raspberry Pi, Arduino, CAN, SPI, UART

Education

BASc Mechatronic Systems Engineering, Computer Science Minor - Al Simon Fraser University 10/2021

Certifications

Certified ScrumMaster (CSM)

Scrum Alliance 12/2023

C, C++, C#, Java SQL, HTML Certifications

Sololearn 11/2019

Mechatronic Systems Assistant

Siemens 12/2018

> 20 hours troubleshooting Siemens PLCs.

Extracurricular Experience

Executive -> Vice President

SFU-S Badminton Club 09/2018 - 11/2021

Technical Mentor

Technovation Girls 12/2020 - 04/2021