

Michael Huang

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Work Experience

Full Stack Software Engineer

GrainFox 10/2022 – 09/2023

- Developed industrial Agri-Tech software solutions serving 5k+ users following an agile framework.
- Integrated cloud monitoring software to decreased system down time and bug-fix turnaround time by 90%.
- Implemented and maintained 25+ software systems, features, and custom components with corresponding test procedures.

Software Developer

MapaRobo 10/2021 – 03/2022

- Spearheaded the creation of a cross platform native app to enable semi-autonomous localization.
- Established local connection between app and robot to activate remote control capabilities via WebSocket.
- Worked closely with project manager, developers, and engineers to refine project requirements based on user story.

Control Engineering Co-op

Ballard Power Systems Inc. 01/2020 – 08/2020

- Implemented control strategies to expand automation capabilities of Industrial Fuel Cell test stations.
- Upgraded sensors and database server connection to improve system reliability and availability.
- Upgraded system architecture, performed analysis, and tuned systems and firmware to improve station performance.

Control Technician Co-op

Northwest Tech-Con Systems Ltd. 05/2018– 08/2018

Outreach Robotic Instructor

Sticks and Stars 06/2016 – 07/2017

Projects

Smart Stock Trader

Personal Winter 2022

- Designed data pipeline for processing stock candle and technical indicator datasets which enabled real time algorithmic trading.
- Performed data analysis and back tested trade algorithms to achieve up to 90% prediction accuracy and up to 300x gain.
- Bridged prediction models, trading platform APIs, and GUI to enable supervised semi-autonomous high frequency trading.

Skills

Specialties

Googling, Full Stack, Mechatronics, GUI/HMI, software development, system design, testing

Languages

Python 3, JavaScript, SQL, HTML/CSS, Rust, Markdown, C++, Ladder logic, English, Chinese

Frameworks / Libraries

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

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

Robotics: ROS

Software / Tools

GitHub, NoSQL, Docker, Confluence, Jira, Google Maps / Cloud Platform, Firebase, SendGrid, Netlify, Vercel, LabVIEW, MATLAB, SOLIDWORKS

Hardware

Beckhoff, Siemens, SCADA, PLC, Raspberry Pi, Arduino, I2C, CAN, SPI, UART

Education

BASc Mechatronic Systems Engineering,
Computer Science Minor - AI

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

Extracurricular Experience

Executive -> Vice President

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

Technical Mentor

Technovation Girls 12/2020 – 04/2021