

Ivan Mak

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Skills

Programming Languages JavaScript, HTML, CSS, Python, Java, C/C++, C#, MATLAB
Frameworks/Libraries React, Redux, Node, Express, MongoDB, Flask, SASS, Bootstrap, jQuery, SQLite, Jest, ROS
Other Git, Bash, Webpack, Heroku, Netlify, Unix, TDD, Data Structures and Algorithms

Projects

DevBook – Social Media Web Application

[Live Site](#) | [Github](#)

React.js, Redux, MongoDB, Express, Node.js, JavaScript, HTML, CSS, Bootstrap, Heroku, Netlify

- Built a social media web application for software developers to create and share their profiles and posts online
- Managed all application states using **Redux** to create reusable functional components in **React**
- Designed **REST API** for **Express** Router middleware-based APIs with **MongoDB** integration
- Developed responsive and interactive UI elements and animations with **HTML**, **CSS**, and **Bootstrap**

Exercise Tracking Web Application

[Live Site](#) | [Github](#)

React.js, MongoDB, Express, Node.js, JavaScript, HTML, SASS, Heroku, Netlify

- Built an exercise tracking application using **React** and **Node** to add, edit, and view exercise
- Designed **REST API** endpoints that implement database connections using **Express** and **MongoDB**
- Deployed server-side and database build to **Heroku** and client-side code to **Netlify**

Virtual Stock Trading Web Application

Python, Flask, SQLite, HTML, CSS, Bootstrap, Jinja

- Built a web application with **Flask** to create user accounts and search, buy, and sell virtual stock
- Utilized the **IEX Cloud API** to query for real-time stock market quotes
- Implemented database connections with **SQLite** and **Python** to store and organize transaction history

Autonomous Object Recognition Self-Balancing Robot

Python, C++, Linux, ROS (Robotic Operating System), TensorFlow, Raspberry Pi, Arduino

- Programmed object detection of vehicles using **TensorFlow** with **90%** accuracy
- Implemented autonomous navigation using **C++** and **Python** with the **ROS** navigation Stack
- Developed a closed loop PID control algorithm using **C++** and **Python** to test self-balancing system

Experience

Dynaplas Ltd.

Sep. 2018 – Apr. 2019

Junior Manufacturing Engineering Coop

Scarborough, ON

- Automated quality inspection of automotive parts by programming a collaborative 6-axis robot arm
- Designed guarding layouts and fixtures using **SOLIDWORKS** to ensure safety and efficiency on the plant floor

Brockport Home Systems

May. 2016 – Aug. 2016

Junior Project Analyst

Etobicoke, ON

- Re-designed and fabricated pneumatic lifting table using **Siemens NX** and welding to optimize workspace
- Tested small scale pneumatic and hydraulic actuators using sensors to verify functionality for future projects

Education

Ontario Tech University

Apr. 2020

Bachelor of Engineering (Honours), Mechatronics Engineering

Scarborough, ON

The Odin Project

Feb. 2021

Open-Source Web Development Bootcamp – Full Stack JavaScript Track

Online