Ian Lai

✉ ianlaiuw@gmail.com
🌐 https://ianlai.ca
in linkedin.com/in/laiian
⬠ iangitscode

Education

University of Waterloo
4A - Bachelor of
Computer Science,
Economics Minor

Skills

Programming
✳ C++
✳ C
✳ Python 3
✳ Typescript
✳ Angular 7
✳ NodeJS
✳ HTML5 / CSS3 / ES6
✳ BASH
✳ Java
✳ SQL

Development Tools
✳ Mercurial
✳ Git
✳ IntelliJ Idea
✳ Sublime Text
✳ Vi
✳ Linux
✳ Jasmine

Interests

Dragonboat

Taekwondo

Musicals

Chess

Trombone

Piano

Employment

Amazon, SDE Intern   May 2019 to August 2019
✳ Worked with Java on the Payment Products team
✳ Created a templating tool to replace legacy architecture by using AWS to host workflow orchestration services
✳ Shortened initial infrastructure creation time from weeks to hours
✳ Projected yearly infrastructure cost savings of over 90%

Visier, Software Developer   September 2017 to April 2018
✳ Added the ability for an admin user to upload their company's logo and display it throughout the application
✳ Implemented a toggleable high contrast mode to aid with visibility on projectors
✳ Rigorously wrote unit tests with Jasmine for components and services created
✳ Gained extensive experience with Mercurial, Angular, RxJS, and NodeJS, and was exposed to Docker and Scala

Humber Institute of Technology, Math Learning Support   January 2017 to April 2017
✳ Supported students with their Math and Computer Programming courses
✳ Created a web application to organize and provide auditory reminders of class visits
✳ Conducted an internal analysis on the Math Centre's attendance and return rates
✳ Assisted in the migration of the Headstart program from an outdated platform to D2L

Projects

UWaterloo People Counter   2018
✳ A service to estimate the number of people in each building on campus using UWaterloo public API based on the assumption that each person has a device connected to that building's wireless access point
✳ Frontend written in Angular and hosted on Github Pages
✳ Backend written in Python, using Psycopg2 to interact with a PostgreSQL database on Heroku

Not Cards Against Humanity   2018
✳ An online, mobile friendly Cards Against Humanity clone created with Angular and NodeJS, hosted on Heroku
✳ Supported multiple concurrent games through joinable room codes

OS/161 Kernel   2018
✳ A small toy kernel built in C, implementing crucial kernel components such as synchronization primitives, system calls, support for multiple processes, TLBs, and page tables
✳ Developed on top of Harvard's OS/161 for the MIPS architecture

Juggle   2017
✳ A clone of the Facebook Messenger soccer juggling game, applying a physics engine implemented in Javascript, featuring a game speed slider to modify difficulty
✳ Leveraged CSS to minimize Javascript usage and achieve a smooth playing experience

Quadris   2016
✳ A turn based Tetris command line game created with C++, featuring customizable block shapes, multiple levels, and an expandable playing field as game options