ALAIN LOU

ECE, University of Waterloo

Contact

Phone: (647) 248-4333

Email: alain.zeyu.lou@uwaterloo.ca

Website: alainlou.com

GitHub: github.com/alainlou

Technologies

Javascript (Angular, ES6, TypeScript)

Java (Spring Boot, Spring Data, Spring Cloud)

Python (numpy, openpyxl)

C++

KiCad

Awards

2019   Top 10 Overall, Hack Lassonde

2018   1st in Canada, HourRank 31

2018   President's Scholarship of Distinction

2018   Digital Science, SAS Big Data Challenge

2017   Top 50, Sr. Canadian Computing Comp.

Education

B.ASc. CANDIDATE, HONOURS COMPUTER ENGINEERING

University of Waterloo, 2023

- President's Scholarship of Distinction
- GPA: 3.7

Experience

Royal Bank of Canada

Technical Systems Analyst, Online Banking
January - April 2019

- Angular (frontend), Java (backend), MariaDB (SQL database)
- Implemented Redis, Spring Data, Spring Cloud, NgRx technologies
- Online banking UI, backend services (reverse proxy, authentication, pagination), batch jobs

University of Toronto

Research Assistant, Department of Psychology
July - September 2017

- Python (openpyxl, numpy), R, MATLAB
- Data processing and analysis
- Developed additional features for online learning platform (HTML, CSS, JS)

Projects

ShareTO - Top 10 at Hack Lassonde

Winter 2019

Angular, Spring Boot, MongoDB
A geolocation based online marketplace for shareable items and equipment. Leverages Google Maps and Geolocation APIs, using GCP as platform.

BrothFish

Winter 2019

- **Python**
- UCI compatible chess engine written in Python, using mini-max with alpha-beta pruning and piece-square tables.

ClimateChangeDB – STEM Fellowship/SAS Big Data Challenge

Fall 2017 – Spring 2018

Java
Used data from Statistic Canada and Environment Canada to calculate best spots for solar farms in Ontario. Our research paper won the Digital Science Award at the STEM Fellowship/SAS Big Data Challenge 2018

DineSafe – Presented to City of Toronto

Spring – Summer 2017

Android, Java, IBM Cloudant
Developed client for noSQL database of JSON Objects (IBM Cloudant)
Android mobile application using Google Maps and Geolocation APIs
XML to JSON converter for City of Toronto OpenData