Evan Li

I like (very!) contemporary jazz piano, video games and photography.

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Skills

Languages:	C++, C, SQL, Java, Python, Scala, JavaScript (React/Flux), MATLAB, Bash
Tools:	Pandas, Scikit-learn, Tensorflow, Seaborn, NodeJS, LAMP, Redis

Experience

Core Software Developer - IBM Canada Varicent — May 2018 - Aug 2018

- Implemented API Keys for **REST API (C#)** and **ICM Web App (JavaScript)**
- Developed Federated Access controls to automatically configure ICM users' account settings based on their organization account privileges
- Added the ability to schedule and display automatic model backups
- Designed and implemented individual model visibility controls (e.g. certain user roles, or users connected through SSH, IP whitelisting)
- Improved **SAML** protocol to enforce request audience and lifespan assertions

Behavioural Team Member - WATonomous — Sept 2018 - Dec 2018

- Designed and implemented localized obstacle map to avoid object collisions and distinguish between static and dynamic obstacles
- Developed waypoint processor to plan vehicle path to find waypoints on a map

Projects

Somewhat-Blue / Chess AI / Python (Tensorflow), C++, EC2 — Jun-Aug 2018

- Implemented AlphaZero's Self-Play learning algorithm
- Trained a **Convolutional Neural Net** to evaluate board positions in order to suggest the moves that should be evaluated in the **Monte-Carlo Tree Search**
- Reduced tree search time by **54%** using **Alpha-Beta pruning**

VM / Vim Clone / C++ — Nov 2018

- Final project for CS246e, done in a group of 2
- **Terminal editor** supporting some Vim features (e.g. motions, search, macros)
- Implemented **MVC pattern** to control input/output, state logic used **visitor pattern**

Scala!? / Scala Subset Compiler / Scala — Sept - Dec 2018

- Compiler for a typed subset of **Scala** to **MIPS assembly**
- Implemented **Lexer/Parser** (CYK), **type safety** and **garbage collector (Cheney)**
- Features include **lexical scoping**, **closures** and **tail call** optimization

Kaggle (@evanli1999)/ Kernels and Competitions / Python — Ongoing

- Analysis of Kaggle Datasets such as breast cancer and credit card fraud detection
- Competitions such as the Avito Demand Challenge

Education

University of Waterloo

Double Major in B.Math Computer Science & Statistics 2021