Rongqi Fan
(Richard)

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SKILLS

Adaptability

Collaboration

Problem Solving

Strong Work Ethic

Time Management

C++, C, JAVA, Python

EDUCATION

University of Waterloo
(Computer Science)
Waterloo, ON, CA
2020 - 2025

St. Andrew's College
High School, Aurora, ON, CA
2017 - 2020

AWARDS

The Old Boy's Medal in Mathematics 2020
Top Math student in the graduating class

About

I am a self-motivated Computer Science student who embraces challenges at all levels. With more than 4 years of programming experience, I am able to work in a collaborative environment. Proficient in both English and Chinese.

- Aspired Software Engineer aiming for degrees in Computer Science, Statistics with a specialization in AI. Inspired by AlphaGo.
- Great desire to learn. Self-study AI/DL technology outside of classroom.
- Motivated to become a tech entrepreneur in the future.
- Clubs: Investment club, JV Soccer team, curling team, data visualization.
- Hobbies: The game of Go with amateur three dan, Piano, Super sports fan, Economics and Finance.

Projects

Personal Website

- Developed a website using HTML, CSS, JavaScript and Django.
- Support both Chinese and English.
- Took advantage of the default SQLite database using Django models.
- Used libraries such as React and Bootstrap.

Alpha Zero - Gomoku

- Implemented a modified version of Alpha Zero for Gomoku.
- Created an UI using Vue.js with Flask as the backend (REST API).
- Employed reinforcement learning principles with Monte Carlo Tree Search as policy improver.

Machine Learning

- Implemented basic linear models such as logistic regression and linear regression using gradient descent (Numpy, Tensorflow).
- Trained various CNN with different architectures (Mainly variation of VGG-16). Achieved state-of-art 90+% accuracy on cifar10.
- Implemented Random Forest and Gradient Boosting Tree in Python.

Constructor

- Collaborated with a classmate to develop a modified version of the game Catan.
- Designed, implemented and tested the project thoroughly in a group of two.
- Employed Object-Oriented Programming principles.

Creature Classifier

- Programmed a classifier that determines the type of a creature based on its structure (defined as unweighted, undirected graph).
- Used unique pointers and shared pointers to make the project free of "new" and "delete".
- Employed RAII principles throughout the project.