Owen Qian

University of Waterloo | Computer Engineering
2015 - 2020

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OVERVIEW

Languages and Experience

Java
- Created database program with GUI in *NetBeans*

C/C++
- Image processing with *OpenCV*

Machine Learning
- Taking Stanford's online machine learning course

MATLAB

Python

HTML/CSS

Development Tools

Git/Github

NetBeans

Eclipse

Vim

Achievements

1st place in 2016 Canadian University Chess Championships (CUCC)

PennApps XIII Winner

2360 overall SAT score

800 math, 800 writing, 760 CR

Interests

Chess – it's as much a creative effort as an analytical one!

Traveling – never a boring adventure!

PROJECTS

Bricked | Poker AI (in progress)
- Completed hand strength evaluator with Monte Carlo analysis
- Implemented opponent modeling and shifting of hand probabilties based on opponent actions
- Researched into decision making algorithmns for games of imperfect information

Live Free | Neural Network Glucose Predictor
- Wrote neural network predicting diabetic patient glucose levels with ***91% accuracy***
- PennApps XIII best predictive algorithm using stochastic, random-batch gradient descent

Step Up | Android Pedometer
- Calculates displacement after 35 steps to within ***1 m*** by interpreting accelerometer readings
- Created pedometer accurate to within 2 steps using finite-state machines

Robot Racing | Competitive Design Team
- Prototyped light detection algorithm in MATLAB then ported over to C++ for faster runtime with ***OpenCV*** library
- Developed algorithm to isolate traffic light and detect change from red to green light using ***hsv filters*** and colour channel manipulation

Employee Database
- Created responsive GUI in ***NetBeans*** for easily accessing and modifying employee info
- Implemented hash tables and linked lists for quick look-up and easy data storage
- Modeled similar classes of part/full-time employee with subclasses and inheritance

EDUCATION

University of Waterloo | Computer Engineering
Bachelor of Applied Science
Expected June 2020