

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)

Current

- Completed hand strength evaluator
- (Planned) Application of game theory to evaluate decision branches
- Factoring in pot odds to calculate expected value
- Research into decision making algorithms for games of imperfect information



Live Free | Neural Network Glucose Predictor

Jan 2016

- Wrote neural network predicting diabetic patient glucose levels with **91% accuracy**
- Winner of PennApps XIII
- Implemented stochastic, random-batch gradient descent



Step Up | Android Pedometer

Feb 2016

- Created accurate pedometer using phone accelerometer readings
- Used concept of finite-state machines to detect steps
- (Planned) implementation of neural networks to detect patterns in steps and expansion to human gait detector

Robot Racing | Competitive Design Team

Feb 2016

- Prototyped and tested 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

May 2015

- 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