Owen **Qian**

Contact

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github.com/OwenQian

Languages

C/C++
Java
Python
MATLAB
JavaScript
HTML
CSS
PHP

Platforms

UNIX terminal, Vi/Vim, NetBeans, Eclipse, MATLAB

Interests

Chess
Traveling
Machine Learning

Skills

Object Oriented Design

- 2 years of Java/Android through side projects, creating GPS app for Android
- 3 years of C++ implementing data structures and algorithms including hash-tables, quick-sort and working with OpenCV for Robotics design teams

Web Development

- Created personal website from scratch with HTML/CSS and JavaScript

Experience

Current — **One of a Kind**
Intelligent Poker AI—Makes insightful decisions by predicting opponent's holdings
- Use of Monte Carlo analysis to calculate probability of winning
- Adjust opponent hand probabilities based on model of logical player

Jan 2016 — **Live Free** — PennApps XIII
Diabetes Glucose Level Predictor
- Predicts blood sugar levels with **91% accuracy!**
- Implemented neural network with stochastic, random-batch gradient descent
- Map reduced to run on multi-threaded Linode servers

Mar 2016 — **Robot Racing** — University of Waterloo
Competitive Design Team—Designing autonomously driving racing car
- Used hsv filters and colour channel manipulation to isolate red and green for traffic light detection
- Prototyped algorithm in MATLAB then transposed code to C++ using OpenCV library

May 2015 — **Employee Database**
Java Program with GUI—Allowing efficient storage and look-up
- Practiced object-oriented design, applying inheritance for Part-time and Full-time employees
- Look-up of employee with ID number, first and last name, ID number, and working status in constant time

June 2015 — **Lead Robotics Programmer** — FIRST and VEX Robotics
Oversaw development of autonomous robot function for 2015 Recycle Rush
- Led design and creation of plastic-bin-stacking algorithm with development schedules and strict deadlines
- Co-ordinated and worked in parallel in cross-functional environment with Mechanical and Electrical teams

Awards

Jan 2016 — **Best Predictive Algorithm** — PennApps XIII
Live Free—91% accurate neural network glucose classifier

Jan 2016 — **National Chess Master** — Canadian University Chess Championships
Led Waterloo team to 2nd place finish with best individual performance

Education

2015–2020 — **B.ASc** Candidate in Computer Engineering — University of Waterloo

Mar 2016 — Stanford Machine Learning — Coursera

Jan 2015 — 2360 SAT Score: 800 Math, 800 Writing, 760 Reading — College Board