# Owen Qian

#### Contact

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## 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  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	<ul> <li>Robot Racing         <ul> <li>Competitive Design Team—Designing autonomously driving racing car</li> <li>Used hsv filters and colour channel manipulation to isolate red and green for traffic light detection</li> <li>Prototyped algorithm in MATLAB then transposed code to C++ using OpenCV library</li> </ul> </li> </ul>		
May 2015	<ul> <li>Employee Database</li> <li>Java Program with GUI—Allowing efficient storage and look-up</li> <li>Practiced object-oriented design, applying inheritance for Part-time and Full-time employees</li> <li>Look-up of employee with ID number, first and last name, ID number, and working status in constant time</li> </ul>		

#### 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 Live Free-91% accurate neural network glucose	PennApps XIII e 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