# GARY SHEN

garyshen.me

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## Skills

**Languages:** Java, C#, C++, SQL, JavaScript, HTML/CSS, Ruby/Rails, R, Assembly, VHDL

**Technologies/Concepts:** Android, React Native, ReactJS, Redux, Meteor, Express, NodeJS, MongoDB, Shiny, REST, Ajax, Tensorflow, Supervised Machine Learning

## Education

**Ivey Business School - HBA Candidate**
- 2017-2020 (Expected)

**Western University - BESc (Computer Engineering) Candidate**
- 2015-2020
- 94% Average, 3.99 GPA
- Dean's Honor Roll 2016, 2017

## Publications

**A novel WiFi-based indoor localization system - IEEE CSCWD 2017**
- Shen, G., Yin, X., Wang, X., Shen, C.
- Finalist for Best Student Paper Award

**Mitigating sensor differences for phone-based human activity recognition - IEEE SMC 2016**
- Yin, X., Shen, G., Wang, X., Shen, W.

## Awards

Ivey Alumni Association Toronto Chapter HBA Scholarship ($24,000) - 2017

NSERC Undergraduate Student Research Award ($6,000) - 2016

National President's Scholarship ($50,000) - 2015

## Activities and Interests

Western Founders' Network VP Education - 2016-Present

Algo Trading Club Platform Developer - 2016-2017

Thames Valley Science/Engineering Fair Sponsorship Head - 2015-Present

Interests: Hockey, Golf, Ping Pong, Pro Sports Analytics, Board Games

## Experience

**Magnet Forensics - Software Developer Co-op**
*May 2017-Aug 2017*
- Full-stack development for a metric tracking and visualization dashboard; changes resulted in a more streamlined internal development workflow and were used across all development teams
- Added new multithreading and previewing functionalities for the product licensing tool, reducing wait times in the license renewal process from 90 minutes to less than 15 minutes
- *Technologies used: ReactJS/Redux, MySQL, C#, Python, REST*

**Cambridge Brain Sciences - Student Developer**
*Jan 2017-Apr 2017*
- Recognized a need to make academic neurological research tests more modern and provided a scalable solution by porting puzzles to a full web stack; weekly test uses increased from 1,000 to 3,000
- Established a comprehensive strategy for validating behaviour of new tests, including automated tests and behaviour tests to allow over 100,000 data entries and baseline standards to remain relevant
- *Technologies used: Ruby on Rails, ReactJS/Redux, MySQL*

**Western University - Undergraduate Researcher**
*Nov 2015-Aug 2016*
- Developed a model for indoor locationing based on a WiFi signal strengths that was 6 times more time-efficient than existing methods
- Prototyped an activity recognition app, applying machine learning methods (SVM classifiers) to improve recall from 76% to 92% and precision from 84% to 88%
- *Technologies used: Android, Java, REST, Weka, MATLAB*

## Projects

**LineApp** *2017*
- A native mobile application for crowd sourcing line lengths
- *Technologies used: React Native, MongoDB, Express, NodeJS*

**IOU** *2017*
- A web application for bill splitting and person to person payments
- *Technologies used: Meteor, MongoDB, Paypal API*

**NHL Prediction Model** 2016-*2017*
- A machine learning model for predicting player stats and NHL results
- *Technologies used: R*

**Group Tools Chatbot** *2017*
- A Facebook messenger chatbot adding functionalities to group chats
- *Technologies used: NodeJS, Messenger Platform API*

**BikeSafe for V2V** *2016*
- A smartwatch app detecting cyclists' hand signals
- *Technologies used: Android, Java, Python, REST, Pebble API*

**Machine Learning Based Bed Monitoring System** *2015*
- A system for monitoring bed-related scenarios and sleep patterns
- *Technologies used: Java, Zigbee, Weka*