

# GARY SHEN

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## Skills

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

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

## 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

**ESPN Fantasy Hockey API 2018**

- API for pulling data from ESPN fantasy hockey
- *Technologies used: R*

**LineApp 2017**

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

**IOU 2017**

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

**NHL Prediction Models 2017-2018**

- Various models for predicting player stats and NHL results
- *Technologies used: R, Tensorflow*

**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*