

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, ReactJS, Redux, Meteor, MongoDB, Meteor, Shiny, REST, Ajax, Supervised Machine Learning

Education

Ivey Business School - HBA Candidate

- 2017-2020 (Expected)

Western University - BESC Candidate

- 2015-2020 (Expected)

- 94% Average

- Dean's Honour Roll 2016, 2017

Publications

A Novel Wifi-Based Indoor Localization System - IEEE CSCWD 2017

- Shen, G., Yin, X., Wang, X. and Shen, C.

Mitigating Sensor Differences for Phone-Based Human Activity Recognition - IEEE SMC 2016

- Yin, X., Shen, G., Wang, X. and Shen, W.

Awards

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

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

Top First Year Design Project - 2016

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

Team Canada International Science and Engineering Fair Top 30 - 2015

Canada Wide Science Fair Excellence Awards and Resource Challenge Award (\$9,700) - 2011-2015

Activities and Interests

Western Founders' Network VP Education - 2016-Present

Algo Trading Club Platform Developer - 2016-2017

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

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

Experience

Magnet Forensics - Software Developer Co-op May 2017-Aug 2017

- Full-stack development for a performance metric tracking dashboard that aggregated development and testing data from several sources; resulted in a more streamlined internal development workflow and a web application that is used by over 75% of employees

- Designed and implemented multithreading functionality and a new previewing feature for the product licensing tool, improving the speed of the license renewal process by over 23%

- **Technologies used: ReactJS/Redux, MySQL, C#, Python, Batch, REST**

Cambridge Brain Sciences - Student Developer Jan 2017-Apr 2017

- Modernized cognitive testing suite by porting puzzles from flash player to HTML5 and JS, increasing users by over 202%

- Constructed mathematical model for standardizing scores from new versions to be compatible with prior data, allowing over 100,000 data entries to remain relevant

- **Technologies used: Ruby on Rails, SQL**

Western University - Undergraduate Researcher Nov 2015-Aug 2016

- Innovated and prototyped an indoor locationing technique based on a self-developed WiFi signal strength propagation based model; resulting locationing method had a theoretical pre-deployment efficiency gain of a factor of 6 compared to the current standard for indoor locationing

- Applied machine learning methods to a human activity recognition app to improve recall from 76% to 92% and precision from 84% to 88%

- **Technologies used: Android, Java, REST, Weka, MATLAB**

Additional Projects

IOU

In Progress

- A web application for bill splitting and small person to person payments

- **Technologies used: Meteor, MongoDB, Paypal API**

NHL Prediction Model

2017

- A machine learning model for predicting players stats and NHL results

- **Technologies used: R**

Group Tools Chatbot

2017

- A Facebook messenger chatbot adding several features to group chats (gold star tracker, randomizer, and reaction picture sender)

- **Technologies used: NodeJS, Messenger Platform API**

BikeSafe for V2V

2016

- A smartwatch app detecting cyclists' hand signals for the purpose of future vehicle to vehicle communication protocols

- **Technologies used: Android, Java, Python, REST, Pebble API**

Smart Bed Monitoring System

2015

- A machine learning based system for detecting bed-related scenarios and monitoring sleep patterns

- **Technologies used: Java, Zigbee, Weka**