

GARY SHEN

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Summary of Qualifications

- Experience:** Relevant work experience as a research assistant along with many years of in leadership roles for self-guided projects for clubs and science fair competitions
- Technical Skills:** Working Knowledge of: C++, Java, Android SDK, Excel, Matlab, Git, Weka, AutoCAD, HTML
Basic Understanding of: C, Arduino, Zigbee, RFID, Machine Learning, CSS, REST, JSON
- Personal Skills:** Creative problem solver able to learn new concepts quickly who welcomes challenging problems and is able to work effectively individually or in a team environment

Education

Western University | 2015-2020
Computer Engineering and Honours
Business Administration Dual Degree
Dean's Honor List 2016
3.99 GPA | 94% Weighted Average

Publications

Mitigating Sensor Differences for Phone-based Human Activity Recognition | 2016
Yin, X., Shen, G., Wang, X. and Shen, W.
IEEE SMC 2016

Awards

NSERC USRA | 2016
Awarded 1 of 5 faculty undergraduate student research awards by the National Sciences and Engineering Research Council.

Top First Year Design Project | 2016
Course project was recognized as one of the top 10 out of over 100 first year engineering design projects.

National President's Scholarship | 2015
Awarded by Western University to recognize all-round excellence and achievement in extracurricular activities and academics

Loran Scholar Program Semifinalist | 2015
Awarded to exceptional young Canadians who demonstrate character, service and leadership.

Canada Wide Science Fair | 2011-2015
CWSF Finalist in 2011, 2012, 2013 and 2015.
Awarded 4 Bronze Excellence awards and the Resource Challenge award

Other Employment

Delta London Armouries | 2015-Present
Restaurant Porter and Server

London Referees Group | 2012-2016
Hockey Referee

Nor'West Soccer Club | 2012-2015
Soccer Referee

City of London | 2012-2013
Skating Instructor

Engineering Experience

Western University | November 2015-August 2016
Research Assistant and NSERC USRA Fellow

Worked on several research projects in an electrical and computer engineering lab. Projects included:

- Exploring WIFI signal strength based indoor locationing techniques.
I created RESTful web service and Android apps to exhibit and test a propagation-based and fingerprint-based system.
- Developed Android activity recognition app and researched mitigation procedures for sensor difference effects.
I wrote MatLab scripts and implemented Weka machine learning tool for data collection, classification, analysis and decision making to increase activity recognition accuracy from 76% to 92%.

Terzan Tech | November 2012-August 2015
Co-Founder and Developer

Developed assistive technologies for independent senior living. Focused on hardware interfaces for these technologies.

Additional Projects

Bed Monitoring System | 2015

Created a machine-learning based bed monitoring system to recognize bed-related activities and sleep patterns.

Children's Education App | 2015

Developed an app consisting of education focused mini games for children aged 5-10.

Fall Detection App | 2014

Wrote code for an Android app that uses smartphone accelerometer and gyroscope data to detect falls.

Keyboard Controllable Car | 2013

Built and wrote code in C for a small controllable car.

RFID Based Object Locator | 2012

Wrote code in java to detect objects with passive RFID tags.

Volunteer Causes

Heart 4 Heart Charity London Chapter | 2015-Present

Vice President of Finance

Thames Valley Science and Engineering Fair | 2015-Present

Judge and Sponsorship Team Member

Western Student Research Conference | 2015-2016

Engineering Faculty Representative

IEEE CSCWD 2013 Conference | 2013

Registration Volunteer