GARY **SHEN**

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Summary of Qualifications

Experience: Exceptional student with relevant work experience in a research environment and on self-guided projects.

Languages: C++, Java, JSON, C#, C, MATLAB, R, HTML, CSS, Javascript, Python

Technologies: Android, ReST, Shiny, Weka (Machine Learning), Altera Quartus (FPGA)

Personal Skills: Creative problem solver able to learn new concepts quickly who welcomes challenging problems with a detail oriented mindset and strong initiative.

Education

Western University ... 2015-2020 (Expected)
BESc Candidate | 94% Average
Pursuing Computer Engineering and Honours Business Administration Dual Degree
Dean's Honor List 2016

Publications

A Novel WiFi-Based Indoor Localization System... 2017
Shen, G., Yin, X., Wang, X. and Shen, C.
IEEE CSCWD 2017

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 projects.

National President's Scholarship...... 2015
Awarded 1 of 20 top Western University entrance scholarships in recognition of all-round excellence and achievement in extracurriculars and academics

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

Team Canada ISEF Top 30................ 2015
Selected as 1 of the 30 best science fair projects in Canada in selection process for representing Canada at the International Science and Engineering Fair

Canada Wide Science Fair....... 2011-2015
4 x Bronze Excellence award
Resource Challenge award

Experience

Algorithm Trading Club...................... February 2017-Present
Platform Developer
Cambridge Brain Sciences .... February 2017-Present
Owen Lab Research Assistant/Developer
Western Management Club..... October 2016-December 2016
Business Consultant
Provided pro-bono consulting for Mystery Escape Rooms
Prepared comprehensive marketing plan for expansion to new location
Western University .... November 2015-August 2016
Research Assistant and NSERC USRA Fellow
Explored WiFi signal strength based indoor locationing techniques. I created a propagation-based system, deploying a RESTful web service and and android app that was 6.67 times more time-efficient than previous indoor locationing standards.
Researched activity recognition based on applying machine learning to smartphone sensor data and specific mitigation procedures for effects of sensor difference. Wrote MATLAB scripts and implemented Weka machine learning tool for data collection, classification and analysis increasing accuracy from 76% to 92%.
Findings were published at the IEEE SMC 2016 Conference.
Freelance .... October 2011- August 2013
Web Developer
Designed and developed websites for a variety of local clients.

Additional Projects

BikeSayf for V2V 2016
Built a system to allow bikers to more effectively share the road with vehicles of the future at Hack the North 2016. Used Pebble API to detect arm signals and communicate with surrounding cars, integrating bikes into the V2V infrastructure.
Smart Bed Monitoring System 2015
Created a machine-learning based bed monitoring system that recognizes bed-related activities, falls and sleep patterns using Flexiforce sensors and Zigbee.
Implemented decision tree model developed from a machine learning algorithm with supervised data.
Fall Detection App 2014
Coded for an fall detection app that uses smartphone sensor data.
Used Twilio API to generate alert SMS to respond to detected events.
Created algorithm to identify falls with an 80% accuracy.

Leadership Positions

Undergraduate Engineering Society Council | 2nd Year ECE Rep
Thames Valley Science/Engineering Fair | Judge, Sponsorship Head
Western Founders Network | Education Portfolio Director
Heart 4 Heart Charity London Chapter | VP Finance
Western Scholars Research Conference 2016 | Organizer
IEEE CSCWD 2013 Conference | Registration Volunteer

Other Employment

Delta London Armouries | Restaurant Porter 2015-2016
London Referees Group | Hockey Referee 2012-2016
Nor'West Soccer Club | Soccer Referee 2012-2016
Terzan Tech | Co-Founder, Developer 2012-2015

view all technical projects on linkedin