Steven Luo

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in swluo stluo

Technical Skills

PROGRAMMING LANGUAGES
- C
- C#
- C++
- Python
- Java
- SQL
- Matlab

FRAMEWORK & TOOLS
- .NET
- Android
- Unix
- QNX (RTOS)
- GIT
- Azure IoT Hub

Education

University of Waterloo - Computer Engineering
BASc 2020
- Conference speaker and delegate for Engineering Society
- Webmaster for Waterloo Engineering Society's WordPress website

Personal Traits

Collaborative
- Successful team player with exceptional communication skills resulting in effective sprint meetings

Enthusiastic
- Track record of establishing upbeat and friendly environments through a can do attitude with a witty sense of humor

Driven
- Demonstrates passion and continuous learning by consistently taking on extra responsibilities

Experience

Milliman FRM September 2017 - December 2017
Quantitative Development Intern Chicago IL
- Developed publisher subscriber library that guaranteed delivery for up to 5000 message per second
- Used synchronization patterns to solve reader and writer problems in network caches increasing performance by 20%
- Created desktop application that allow non-technical analysts to work with derivative models and hedging positions

Blackberry January 2017 - April 2017
Software Developer Kanata ON
- Managed parallel interprocess communication and multithreaded execution flow by creating a thread safe state machine
- Engineered asynchronous logging system for Atmel touchscreen drivers allowing multi-touch debugging and behaviour analytics
- Utilized defensive coding practices for mission critical systems in a QNX real-time embedded system to meet ISO road vehicle standards

Peach Arch Education May 2016 - August 2016
Java Instructor Vancouver BC
- Presented interactive lectures for an Introduction to Java Course
- Educated students in problem-solving and object-oriented principles
- Designed final project to test OOP, texture control, and animation effects

Projects

IoT Airplane November 2017
- Provisioned an Azure IoT Hub with Event Hub and storage account
- Programmed a MXChip IoT device to securely connect to IoT Hub
- Deployed an Azure Function that transforms accelerometer data input into "flight data"

Fourier Watermelon (Android) November 2017
- Offline machine learning Android app to detect the sweetness and juiciness of watermelons
- Rapid audio data processing using fast fourier transforms
- Used a KNN model to learn and predict watermelon results

Data For a Cause September 2017
- Successful proof of concept that helps Nonprofits utilize Open Data
- Automated processing of a 230,000 entry dataset into MySQL database from Open Data Canada
- Created a user friendly searchable interface for easy data access

Map My Path (Android) March 2016
- Real-time accelerometer data processing for footstep detection
- Footstep recognition algorithm using low bypass filter integrated with finite state machine
- Dynamic pathfinding algorithm using recursion for quick navigation