

SIMENG YANG

☎ +1 (905) 807-6948 | ✉ s275yang@edu.uwaterloo.ca | 🏠 simengyang.me | 📱 simeng-yang

Skills

Proficient C/C++, Python, C#, HTML / CSS, PHP, SQL

Familiar Java, JavaScript, Android, Perl, LAMP Stack, Unity

Technologies Unix/Linux, GDB, Git/Mercurial, Jira

Experience

Software Development Intern

Markham, ON

GENESYS LABORATORIES

May - August 2017

- Developed a media control suite for server-side recording and browser playback in **C++**
- Extended support for next-generation audio codec, boosting call quality by up to 50%
- Implemented unit tests for media encapsulation with Google Test on **Linux** and **Windows**
- Wrote **XML** scripts to simulate user-agent scenarios with SIP protocol over the media server
- Developed and maintained features for the web-based Real-Time Communications system

ECOO Programming Contest

Toronto, ON

REGIONAL QUALIFIER X 2

Feb 2016/2015

- **Semi-finalists** across Ontario, 2015 and 2016
- Solved problems by implementing **Search, Sort, and Pathfinding** algorithms in **C++**, **Python**, and **C#**
- Applied **dynamic programming** to optimize solutions and satisfy runtime constraints

Projects

Student Management System

JAVASCRIPT, PHP, MYSQL, HTML / CSS, LAMP STACK, APACHE

- Implemented a login-authenticated database to manage 1,000+ student records using **LAMP Stack**
- Developed web interface using **JavaScript** and **HTML / CSS**, with database integration via **MySQL** and **Apache**
- Designed robust input sanitation for text-fields using error-handlers and regular expressions in **PHP**

3D Dogfighter

C#, UNITY

- Developed a multiplayer aerial combat game in **C#** with the **Unity** game engine
- Integrated networking with match-making system for hosting 20+ concurrent users
- Designed combat and flight mechanics, user interface and terrain

Lego Printer

C/C++

- Programmed a printer to produce sketches from 50+ points on a brick microcomputer
- Developed a GUI for plotting points through keyboard and mouse input in **C++**
- Coded 3-axial operation and multi-sensor feedback loop in **C**

Fraud Detector

PYTHON

- Implemented an SVM in **Python** to identify fraudulent employees from financial and email datasets
- Tuned classification algorithm to achieve 85% accuracy on 14,000+ employee profiles

QuickConnect

ANDROID

- Developed an **Android** App to effortlessly connect with peers on social media using NFC
- Leveraged Facebook API to share social invites and messages

Education

University of Waterloo

CANDIDATE FOR BACHELOR OF COMPUTER SCIENCE, 3.9 CGPA

Sep. 2016 - Exp. May 2021