SIMENG **YANG**

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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 interface for audio recording and playback over Chrome and Firefox in **C++**
- Implemented unit tests for audio encapsulation with Google Test on **Linux** and **Windows**
- Wrote **XML** scripts to simulate user-agent scenarios with SIP protocol over the media server
- Programmed and tested features for the web-based Real-Time Communications (RTC) system
- Performed and underwent code reviews to ensure a consistently high quality of code

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 Database Management System
JavaScript, PHP, MySQL, HTML / CSS, LAMP Stack, Apache

- Implemented a login-authenticated database to manage 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 25+ points on a brick microcomputer
- Developed a GUI for plotting points through keyboard and mouse input in **C++**
- Coded 3-axial operation and 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