

Simeng Yang

Aspiring Software Developer

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Skills

- **Proficient:** C/C++, C#, Python
- **Familiar:** Java, JavaScript, Perl, WAMP stack, SQL, PHP, HTML, Matlab
- **Tools:** Unix/Linux, GDB, Valgrind, Git/Mercurial, Jira, Apache

Work Experience

○ Software Developer

Genesys Laboratories

Markham, ON

May – August 2017

- Developed a backend interface from scratch to encapsulate audio in a media container for recording and playback over Chrome and Firefox in **C++**.
- Implemented unit tests for audio encapsulation with the Google tests framework on Windows and Linux.
- Wrote VXML scripts to invoke recording and playback by simulating user agent scenarios with SIP protocol.
- Programmed and tested features for the Genesys Web Real-Time Communications platform.
- Performed and underwent code reviews to ensure a consistently high quality of code.

Projects

○ Student Database Management System

JS, PHP, MySQL, HTML, Apache

- Implemented a login-authenticated database to manage student records using **WAMP stack**.
- Developed the web interface from scratch, with database integration using **MySQL** and **Apache**.
- Implemented robust input sanitation for text-fields using error-handlers and regular expressions in **PHP**.

○ SketchIt! - 2D Printer

C/C++

- Implemented a printer to reproduce sketches from a set of 25+ points on a brick microcomputer.
- Developed a graphical interface for plotting points through keyboard and mouse input in **C++**.
- Coded the calibration and 3-axial operation of the printer with **embedded C**.

○ Jumbotron - Skittle Sorter and Dispenser

C/C++

- Designed an autonomous dispenser for allocating Skittles using an RGB sensor.
- Synchronized the rotation of the feeding wheel and operation of the release shaft in **C++**.

○ PolyTown

C/C++

- Coded a story-telling game with object-oriented features like inheritance, polymorphism, encapsulation, and dynamic memory storage using **C++**.

Education

○ University of Waterloo

Candidate for Bachelor of Computer Science, Co-op, 3.9 cGPA

Expected May 2021