

Da Peng

2A Computer Science | ✉ da.peng@uwaterloo.ca | ☎ (226) 455 - 9966 | 🌐 Da-Pen | 🌐 dpeng.me

Skills Summary

- **Proficient with:** Java, C, C++, JavaScript, HTML/CSS, Git
- **Experience with:** SQL, Python, Node.js, React, Scheme, Bash, Linux, MongoDB, Firebase
- Thorough understanding of OOP concepts gained through projects and related courses

Experience

Beijing Jiaotong University / Guangzhou Port Group

Guangzhou, China

SOFTWARE ENGINEER

May - August 2017

- Created front and back end of a new user interface for creating and editing settings using *Spring* Framework and SWT library
- Performed *SQL* aggregation queries through *Hibernate* to summarize large amounts of data into compact Java objects
- Used *HTML* and *JavaScript* to create a dynamic mobile interface with visual graphs to display data parsed from a *JSON* string
- Suggested and implemented changes to database structure, eliminating redundant tables and increasing data integrity
- Followed agile methodology; engaged in weekly meetings to discuss progress and future plans

Extreme PC

Guelph, ON

COMPUTER ASSISTANT

June - July 2016

- Created and polished ~2000 product descriptions on the Extreme PC website using *HTML*
- Collaborated with 2 other co-op students to assemble custom gaming computers

Projects

Hidden Art 🎮

Java, XML

AN IMAGE-BASED ANDROID GAME

July - August 2018

- Stored images on a cloud server with *Firebase* Storage
- Used *Glide* library to efficiently load and resize images from the web
- Saved settings and game state using a combination of *SharedPreferences* and *ViewModel*
- Prevented overloading issues by using multiple threads

NoScope (Hack the North)

Python, HTML/CSS

A WEB-BASED TOOL FOR DAMAGE ANALYSIS

September 2018

- Collaborated with three other students to create a website for image comparison
- Analyzed differences between images using *OpenCV* computer vision library for *Python*
- Stored images and metadata using a *MongoDB* database
- Handled URL routes using *Bottle* web framework for *Python*

Tank Fighter 🎮

Java, Graphics2D

A TOP-DOWN SHOOTER GAME (DESKTOP APPLICATION)

May - June 2017

- Worked in a team of three; followed *SDLC* to ensure early detection of problems
- Implemented game physics, collision detection (AABB and circle collision), and the *BFS* algorithm to allow enemies to travel towards the player while avoiding bullets
- Used *OOP* for the player, enemies, walls and bullets to avoid repetitive code
- Wrote code to parse text from an external file into levels to allow for easy level editing

Fall Down 🎮

Javascript, HTML/CSS

AN ONLINE 2D INFINITE SCROLLING GAME

March 2016

- Created 2D graphics in *JavaScript* using an *HTML Canvas*
- Implemented gravity, friction random platform generation, and five different upgrade types

Education

University of Waterloo

Waterloo, ON

HONOURS COMPUTER SCIENCE (2A)

September 2017 - Present

- 3.93 GPA
- Faculty of Mathematics Entrance Scholarship (\$8000)
- Related courses: Object Oriented Software Development, Logic and Computation, Algorithm Design and Data Abstraction