Joey Yu Shi

3rd year, Combined Honours Mathematics and Computer Science

604-704-5565

joeyshi12@hotmail.com

https://github.com/joeyshi12

https://joeyshi.tech/

Technical Skills

Programming:	Python, Java, C++, C, Racket
Tools/Environments:	Git, Atom, MATLAB, Jupyter Notebook
Testing:	Unit testing
Markup languages:	HTML, LaTex
Libraries:	Numpy, Matplotlib, Scikit-learn, Pandas

Personal Projects

December 2019 – January 2020

Project: Differential Equation Solver

Technologies: Python

- Created class structure for multiple different types of equations using object-oriented techniques
- Implemented functions that solves and visualizes differential equations by using numerical methods learned in-class
- Designed GUI by using the standard Python interface: Tkinter

September 2019 – November 2019

Project: Pet Blob

Technologies: Java, Android Studio, Reaper, Piskel

- Designed Android app game about nurturing a personal pet blob using Android Studio
- Designed inventory system and pet status system using object-oriented programming
- Created music and animation for background

Academic Projects

January 2020 – February 2020

Project: Image Mesher

Technologies: C++, FTP, SSH

- Created image grid data type using a doubly linked list
- Used pointer manipulation to implement various methods for creating a mesh between images.

| February 2020 – March 2020 | **Project:** | Border Fill |
| | **Technologies**: | C++, FTP, SSH |

- Implemented classes with different distance-based colour selection methods
- Designed a multi-point flood-fill method with edge detection to create animations of images being recoloured

Hackathons

January 2020	**Name:**	NWHacks
	Project:	Bananos
	Technologies:	Java, Android Studio

- Created grocery optimization tool by comparing item prices between selected stores
- Implemented voice recognition using Android Speech API
- Developed functions for parsing speech for item names and quantity

Education

University of British Columbia

- Bachelor of Combined Honours Mathematics and Computer Science
- Science Scholar and Dean's Honour List Standing in 2019

Work Experience

| November 2016 – June 2018 | **Position:** | Line Cook |
| | **Company:** | Earls |

- Cooked dishes up to the Earls' restaurant standards
- Maintained a neat and sanitary workstation
- Prepared and portioned food
- Washed dishes and equipment

Volunteer Work

| September 2016 – June 2018 | **Position:** | Computer Lab Monitor |
| | **Company:** | Fraser Heights Secondary |

- Managed booking of lab equipment for students and teachers
- Supervised the computer lab during lunch-time hours

Interests

| Mathematics, | Music composition, |
| Programming, | Speed-cubing |