



Joey Shi

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<https://github.com/joeyshi12>

<https://joeyshi.tech/>

Education

University of British Columbia

Mathematics & Computer Science

2018 – 2022

cGPA: 4.33 / 4.33

Science Scholar / Dean's Honour List

Technical Skills

Programming Languages

Python

Java

Javascript

C++

C

C#

Assembly

Perl

Tools / Environments

Git

Unity

Android Studio

Jupyter Notebook

LaTeX

MATLAB

Libraries

Scikit-learn

Numpy

Matplotlib

Pygame

Manim

p5.js

Projects

Differential Equation Solver | Python

- Used finite difference methods and Numpy array manipulation to solve differential equations
- Implemented methods for recording and animating solutions
- Designed GUI with TkInter for inputting parameters

Image Compression with Binary Trees | C++, FTP, SSH

- Created hierarchical binary tree datatype to partition images based on colour variance
- Used binary tree pruning algorithm to compress images

Trivia Train | Java, Android Studio

- Requests and processes JSON data from an Open Trivia API
- Designed quiz class to distribute questions and compute score
- Implemented simple layouts and high score saving

Work Experience

University of British Columbia

Undergrad Academic Assistant | July 2020 – August 2020

- Coded WeBWork questions in Perl for UBC calculus students
- Refactored old code and material in the WeBWork problem database to be more modular

Earls

Line Cook | September 2016 – June 2018

- Cooked panfry dishes during evening shifts 3 times a week
- Portioned food and washed dishes and equipment

Hackathons

nwHacks 2019

Bananos | Java, Android Studio

- Created grocery purchasing optimization tool by comparing item prices between selected stores
- Developed functions for parsing speech for item names and quantity