Joey Shi

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https://github.com/joeyshi12
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Technical Skills

Programming Languages
Python
Typescript
Java
C++
C
C#
Assembly

Tools / Environments
Git
Unity
Android Studio
Jupyter Notebook
LaTex
MATLAB

Libraries
Scikit-learn
Numpy
Matplotlib
Pygame
p5.js

Education

University of British Columbia
Mathematics & Computer Science
2018 – 2022
cGPA: 4.33 / 4.33

Projects

Differential Equation Solver | Python
- Used finite difference methods and Numpy array manipulation to solve ordinary and partial differential equations
- Implemented methods for recording and animating solutions
- Designed GUI with TkInter for inputting parameters

Image Compression with Binary Trees | C++
- 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
WeBWorK Content Developer | July 2020 – December 2020
- Coded WeBWorK questions in Perl for UBC calculus exams
- Introduced visuals and animations into past questions using the Desmos API and JavaScript

Earls
Line Cook | September 2016 – June 2018
- Cooked panfry dishes during evening shifts 3 times a week
- Portioned food and washed dishes and equipment

Awards

Trek Excellence Scholarship | August 2020
- Placed in the top 5% of students in my undergraduate year, faculty, and school

Science Scholar / Dean's Honour List | June 2020
- Maintained a standing of over 90% by the end of my second year while carrying a course load of 30 credits