UBC Science Co-op

T: 604.822.9677 | F: 604.822.9676 | science.coop@ubc.ca | www.sciencecoop.ubc.ca

Sparsh Trivedy

Year 2, Computer Science Major
604-727-1576
sparsh.trivedy2140@gmail.com github.com/sparshtrivedy

Technical Skills

Programming: Java, C++, C, JavaScript, SQL, Python, R, Excel*
Web: HTML, CSS, React JS
Tools/Framework: GitHub, Git, Bootstrap, NPM
Testing: JUnit, GDB, Valgrind * currently acquiring

Technical Projects

Note-Maker Web Application – Personal May 2022

- Developed an app in React JS that sends the topic for notes as plain text prompts to OpenAI API and displays the results in a list.
- Implemented a form for entering topic which on submitting displays a log of results in a list, sorted from newest to oldest.
- Saved the API key to a .env file to keep the key hidden.

Image Recognition Web Application – Personal Apr 2022

- Developed a frontend application in React JS framework that recognizes the object in the image URL entered by the user and displays the top 5 results.
- The image recognition functionality was added by making use of a machine learning API (Clarifai API).

Image Partitioning Trees – Academic Mar 2022

- Constructed a PTree, a binary tree whose nodes represent rectangular regions of a PNG image and implemented the render function to construct a PNG from the tree.
- Implemented the Prune function which attempts, starting near the top of a freshly built tree, to remove all descendants of a node, if it meets the specified criteria.
- Implemented two additional functions to flip the PTree horizontally and vertically.

Flood Fill – Academic Feb 2022

- Implemented Stack and Queue classes
- Implemented a function that runs flood fill on an image starting at the seed point. Every fill algorithm requires an ordering structure, which is passed to this function (Queue for breadth-first-search fill and Stack for depth-first-search fill).

Sparsh Trivedy

- Neighbours of the current pixels are pushed onto the stack/queue based on a specified priority condition.

Café Kiosk – Academic Sep-Dec 2021

- Developed an interactive coffee ordering application in Java with a graphical user interface using the Java Swing library.
- Implemented functionality that allows a user to order multiple customized drinks, generate bill, check order summary, and keep a log of when a drink was added or removed from the cart.
- Refactored JSON reader and writer classes to enable save and load functionality in the application.
- Implemented using Object Oriented Programming, with software design principles in mind.

Personal Portfolio Website – Personal Dec 2022

- Developed a responsive personal website to display my work using HTML and CSS.
- This project also uses Bootstrap for styling.
  Website link

Education

University of British Columbia, Vancouver, BC
Bachelor of Science, Computer Science Major Sep 2020 - present
Cumulative average: 83.8%
University of British Columbia, Vancouver, BC
Outstanding International Student Award, 2020

Work Experience

Browns Crafthouse UBC, Vancouver, BC May 2022 - present
Prep-cook and dishwasher

- Work in small teams where effective communication is essential.
- Adapted to a busy work environment where people depend on me to stick to deadlines.
- Learnt to deal with unexpected rushes/situations.

Interests

Tabla, Swimming, Sketching, Cooking