UBC Science Co-op

Dhrubo Karmaker

Combined Major in Computer Science & Statistics, Year 3

dhruv.karmaker@gmail.com | dhrubokarmaker | dhrubokarmaker | dhrubokarmaker.netlify.app

Skills & Interests

Programming Python, Java, JavaScript/TypeScript/HTML/CSS, Lua, C++
Tools & Frameworks React, Node.js, Express, Google Could Platform, Selenium, Postman, Docker

Work Experience

Software Developer In Test Intern (Jan 2022 - Aug 2022)

Student Price Card Ltd.

- Developed and thoroughly documented a robust end-to-end website testing framework using Selenium.
- Wrote reusable Python test code that covered 90% of the cases required for regression testing.
- Facilitated automatic parallel testing in different browsers using Selenium Grid.
- Integrated the tests in the CI/CD pipeline using Docker and Google Cloud Run feature for stable deployment.
- Wrote Python scripts and used JIRA's REST API to automate 60% of my manual QA tasks, e.g. creating release notes, ensuring quick and consistent completion of daily responsibilites.

Undergraduate Teaching Assistant (Jan 2022 - Present)

University of British Columbia

- Mentored students on Java feature development, testing, and debugging, focusing on object-oriented design.
- Hosted office hours so that students develop a good understanding of core software engineering principles.
- Attained 100% favorable rating from students who received my guidance.

Technical Projects

CashTrack (Sep 2022)

- Created a robust Java application that tracks expenses of user on a weekly basis.
- Developed a responsive, easy-to-use UI using the Java Swing framework.
- Implemented features that allow user to update transaction details and retrieve locally stored logs.
- Designed and executed exhaustive tests manually using JUnit that passed with 100% code coverage.
- Currently working on a full stack web application version using React and Express

Sudo.Stream (May 2021)

- Created a responsive web application that allows users to generate a solution to a Sudoku puzzle.
- Implemented generative recursion, arbitary arity trees, and backtracking search algorithm in Javascript to efficiently calculate solution in an average of 1 second.
- Designed a visually appealing, intuitive, and responsive front-end with HTML and CSS.

Roll2D (Dec 2021)

- Developed an arcade game using Lua where players avoid obstacles and aliens for as long as possible.
- Incorporated object orientation for different game objects and implemented the physics behind the game, such as gravity and collision detection by keeping track of object coordinates in every frame.
- Implemented a high score system that stores player data locally in JSON format.

Education

University of British Columbia (Sep 2020 - May 2025)

- BSc. Combined Major in Computer Science & Statistics
- Science Scholar & Dean's Honour List (2021)
- Cumulative Average: 90.2%
- Relevant Courses: Algorithm Design & Analysis, Introduction to Computer Systems, Software Construction