DHRUBO KARMAKER

COMBINED MAJOR IN COMPUTER SCIENCE & STATISTICS, YEAR 3

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SKILLS

Programming	Python, Java, SQL, JavaScript/TypeScript/HTML/CSS, Lua, C++
Tools & Frameworks	React, Node.js, Express, MongoDB, JUnit, Firebase, Google Cloud Platform, Selenium, 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 responsibilities.

Undergraduate Teaching Assistant   (Jan 2022 - Present)

University of British Columbia

- Mentored students on object-oriented feature development in Java, testing using JUnit, and debugging.
- Conducted office hours to teach software engineering principles which improved my communication skills, elevating my ability to articulate technical concepts.
- Attained 100% favorable rating from students who received my guidance.

TECHNICAL PROJECTS

etaGPT   (May 2023)

React, Express, Firebase

- Co-developed an innovative AI-based application, integrating a WhatsApp and Telegram bot overlay with OpenAI's GPT-3.5 language model to provide users with a variety of educational and entertainment services.
- Enhanced the app's knowledge base beyond its training limit by leveraging Google Search API and Axios library for web scraping, providing users with real-time updates on recent events.
- Designed an interactive React analytics page leveraging Firebase Events, providing insightful data on user activity and feature popularity to facilitate continuous bot optimization.

CashTrack   (Dec 2022)

React, Express, MongoDB

- Architected and developed a full-stack web application that tracks users' monthly expenditures.
- Built a responsive React front-end and maintainable client-side code using state management hooks & routers.
- Utilized Express.js to build an optimized REST API to handle CRUD operations in the backend.
- Implemented and integrated a MongoDB database to model and organize user transaction logs.

Sudo.Stream   (May 2021)

JavaScript, HTML, CSS

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

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, Relational Database, Introduction to Software Engineering