Simardeep Singh

Unit 43,1055 Gordon Street, Guelph, ON, N1G 4X9 | P: 519-957-9611 | E: ssingh75@uoguelph.ca

TECHNICAL SKILLS

Languages: C, Java, Python, JavaScript, HTML, CSS, R, bash, MySQL
Web Development Framework: Astro, Bootstrap, node.js
Development: Docker, Git, Automated Testing, Linux
Others: Object-Oriented Programming, Data Structure and Algorithms, Software Development Life Cycle (SDLC), Agile methodology, UNIX/Linux command line, Microsoft Office Suite, Virtual Machines, Machine Learning

WORK EXPERIENCE

Teaching Assistant, Data Structures, University of Guelph   **5 Sept 2023 – Present**

- Provided comprehensive support for **Data Structures and Algorithms** in **C**, and **git**, including addressing inquiries, leading lab sessions, and ensuring exam integrity.
- Played a key role in student success by facilitating orientation, offering personalized support during office hours, collaborating on course material, managing correspondence, and providing constructive grading.

Bioinformatician Co-op, Norgen Biotek, Thorold, ON (Overall Evaluation:Outstanding) 08 May 2023 – 31 Aug 2023

- Led containerization of 3 vital bioinformatics pipelines using **Docker** in **Linux**, ensuring reproducibility & scalability.
- Optimized pipelines and script performance in **Python, R, & Bash**, making scripts faster & efficient by almost 60%.
- Wrote several **Python** scripts for automatically generating and analyzing complex and large datasets.
- Authored **SOPs** for process standardization and troubleshooted complex system issues.
- Learned and worked with **unfamiliar bioinformatics tools** such as Mothur, cutadapt, bbmerge, samtools, STAR, pysam and bioinformatics pipelines, leading to successful dockerization, which version controlled the pipelines.

Software Test Co-op, Intellijoint Surgical, Kitchener, ON   **6 Sept 2022 – 23 Dec 2022**

- Developed and executed, both **manual and automated**, software test plans using **CodeceptJS** and **Playwright,** reducing the time spent on testing by 70-80%.
- Found several bugs using exploratory testing, preventing some potential mistakes which a surgeon could have done while performing surgery.

Software Developer Co-op, Camis Inc., Guelph, ON   **30 May 2022 – 2 Sept 2022**

- Collaborated effectively in a team to construct a Rental Dashboard for Camis application and website using **SQL**, making it easier to keep track of rentals.
- Demonstrated proficiency in unit test maintenance, ticket and bug report responses, and product design reviews.
- Step forward to perform presentation in interdepartmental meetings.

PROJECTS

COVID-19 Statistical Data Analyzer   **March 2021**

- Proficiently processed, analyzed, and visualized COVID-19 data along with related datasets from .csv files.
- Leveraged **Python** libraries to create insightful data representations, facilitating data-driven decision-making.

GryphHub   **March 2023**

- University website built using **Java object-oriented programming** (OOP) concepts.
- Built use case diagrams, class diagram, entity diagram and sequence diagram.

SVG Parser Web Application   **January 2022**

- Created and utilized an interactive web-based GUI that communicates user data with the server using **JavaScript**.
- Executed the integration of **C**-based SVG parsing libraries, ensuring compliance with **API** specifications.

Personal Portfolio website (Website)   **January 2022**

- Utilized **Astro**'s static site generation to ensure fast loading times and excellent performance.
- Achieved optimized performance and mobile responsiveness using **JavaScript**, **HTML, CSS**, ensuring a seamless user experience and improved online visibility.

Portfolio of Investment   **November 2021**

- Developed a graphical user interface (**GUI**) application enabling users to perform actions such as buying, selling, updating, calculating profits, and searching for stocks or mutual funds within stored data.
- Utilized **Java**, applying **OOP** principles to create an intuitive and efficient user experience.

EDUCATION

Bachelor of Computing|Major Software Engineering (Co-op)|Minor Entrepreneurship|University of Guelph (2020–Present)

- Maintaining CGPA of 82.654.