Jayvirsinh Raj

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Education:

Dalhousie University, *Bachelor of Computer Science* (Sexton Scholar) January 2022 – May 2025

Skills:

Interpersonal:	Communication, Teamwork, Leadership, Problem-Solving, Adaptability
Programming Languages:	Java, C, C++, C#, Python, SQL, HTML5, CSS, JavaScript, PHP, Kotlin, Powershell
Frameworks:	JavaFX, Angular JS, React.js, NodeJS, Springboot , ASP.NET Core, NumPy, CAD
Concepts:	CI/CD, Docker, Agile, Test-Driven Development, Gitflow, Junit
Tools:	IntelliJ, Springboot, Visual Studio, Git, JIRA, PowerBI, Postman

Work Experience:

Software Developer Coop | *Protocase Inc.* September 23-December 23

- Utilised Test-Driven Development(TDD) to add features such as selecting multiple items from a dropdown list, displaying active directory and partial modal views using C# with the help of Solidworks API.
- Pear Programmed to develop a Merging Algorithm to merge the key binding between MacOS and Windows reducing the space complexity to save users shortcuts.
- Collaborated with the QA team to identify and resolve critical defects, resulting in a 20% reduction in the number of post-release issues reported by customers.
- Modified CI/CD pipeline to automate building and archiving every release of the application with each release push to reduce the build and deploy time by 40%.

Projects:

Trello Clone Application | *Spring Boot, React, and MySQL*

- Developed a CRUD project management app offering intuitive task management and collaboration features.
- Used Spring Boot to develop RESTful APIs, for performing operations on the data from frontend.
- Enabled data export and import functionality for enhanced user data management.

Text Compressor | *Java*

- Developed a text compression algorithm using Huffman encoding that followed SOLID principles and reduces 65% of file size and 50% of processing time.
- Implemented multithreading to optimize the text compression algorithm, resulting in a 30% improvement in overall application performance and responsiveness.
- Improved code quality by implementing automated testing using Junit5, resulting in a 20% reduction in manual testing time and a 15% decrease in the number of bugs reported.

Sorting Visualizer | *PHP, Data Structures*

- Built a visualizer of Merge Sort, Quick Sort, Heap Sort, and Bubble Sort algorithm.
- Created random input arrays of varying sizes to provide users with the ability to visualize sorting algorithms on different datasets.
- Collaborated with the team to enhance the user interface, to increase in user satisfaction and engagement.

Leadership and Extracurricular:

- **Vice President – External** at Dalhousie Computer Science Society.
- **Teaching Assistant and Marker** for Introduction to Programming at Dalhousie University.
- Presented an optimal solution in **SHACKS 2022 Hackathon** organized by Scotiabank.
- Secured **National Rank 12** at Technotholon organised by IIT G (*Indian Institutes of Technology*).