Jayvirsinh Raj

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EDUCATION:

Dalhousie University**,** *Bachelor of Computer Science* (4x Sexton Scholar) *January 2022 – August 2025*

SKILLS:

Programming Languages:	Java, C#, Python, R, SQL, HTML5, CSS, JavaScript, C, C++, PHP, Swift
Frameworks:	PyTorch, Keras, .NET Core, React.js, Node.js, React, Springboot, Angular
Cloud Technologies:	Azure, Docker, Kubernetes, GCP (Google Cloud Platform), Terraform
Concepts:	REST API, ETL, SDLC, TDD, JUnit, CI/CD, Agile, Redis, OAuth2, Gitflow
Tools:	Git, JIRA, Hadoop, PowerBI, IntelliJ, Visual Studio, Postman, Grafana.

WORK EXPERIENCE:

Software Developer Coop | *Dalhousie University* *May 24 - August 24*

- Streamlined migration of **SQR programs** to Java, increasing system maintainability and performance.
- Enhanced back-end workflows and optimized UI by integrating **RESTful APIs**, achieving faster processing speeds.
- Automated testing with JUnit, reducing debugging cycles by 30%.
- Conducted security code reviews, cutting vulnerabilities by 10% and ensuring compliance with standards.

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

- Utilized **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:

AI-Driven Personalized Fitness App – *Flux* | *React Native, MongoDB, TensorFlow* *August 2024 - Present*

- Designing a Cross- Platform application in **React Native** to dynamically adjust workout intensity, duration, and recovery periods based on user progress and feedback.
- Implementing **OAuth 2.0** for secure user authentication and seamless integration with external APIs, ensuring robust and reliable data synchronization.
- Utilizing **Core ML** to develop adaptive recommendation models that personalize fitness plans according to individual performance and goals.

Text Compressor | *Java* *January 2024 – April 2024*

- Created a text compression algorithm using **Huffman encoding** that followed **SOLID** principles and reduces 65% of file size and 50% of processing time.
- 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 | *React, Data Structures* *September 2023 – December 2023*

- Built a visualizer of **Merge Sort**, **Quick Sort**, **Heap Sort**, and **Bubble Sort algorithm**.
- Created random input arrays of varying sizes to **visualize sorting algorithms** on different datasets.

CERTIFICATES:

- Introduction to Big Data with Spark and Hadoop (IBM)
- Introduction to DevOps (IBM)
- Version Control (Meta)
- Introduction to Android Mobile Application Development (Meta)

LEADERSHIP AND EXTRACURRICULAR:

- **Vice President, Dalhousie Computer Science Society:** Organized tech events and collaborated with industry professionals to engage over 200 students.
- 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)*.