





# Jay Rana

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## TECHNICAL SKILLS

**Languages** : Java, Python, JavaScript, Go, HTML5, CSS, Scripting Languages (Bash), C/C++, SQL  
**Frameworks/Libraries** : React JS, Angular, Spring Boot, Node.js, JUnit, MongoDB  
**Databases** : MongoDB, MySQL, DynamoDB  
**Tools & Technologies** : AWS, Azure, Docker, GCP, Kubernetes, Git/GitLab, Jenkins, Postman, Hibernate, Selenium, Maven, VS Code, IntelliJ IDE, MS Teams, Outlook, Word and Excel  
**Concepts** : Linux Operating System, Agile methodologies, Software Development Life Cycle, CI/CD, Terraform, SOLID Principles, Object Oriented Programming (OOP), Test Driven Development, RESTful services

## GRADUATE PROJECTS

- TripEase** | *ReactJS, Node.js, MongoDB, ExpressJS, Redux* |  Jan 2023 - Apr 2023
- Created a responsive website using MERN stack and deployed this application on Netlify and Render.
  - This platform enables users to plan trips, upload photos, and keep track of expenses throughout the trips.
  - Enhanced User experience by developing the RESTful APIs that interact with MongoDB and provide JSON response.
  - Integrated Stripe Payment Gateway for payment processing and SendGrid Email API for user communication.
- TrimTrek** | *Java, Spring Boot, React, MySQL, JUnit 5, CI/CD, Git, SOLID* |  May 2023 - Aug 2023
- Developed a comprehensive Barber Booking App designed to facilitate efficient appointment scheduling with barbers.
  - Applied Observer, Decorator, and Factory design patterns to improve code quality and maintainability.
  - Adopting a test-driven development approach with 95% code coverage.
  - Tracked project progress using Git and JIRA, and managed the continuous deployment process using a CI/CD pipeline.
- TriviaTitans** | *AWS Lambda, AWS Cognito, DynamoDB, AWS Lex, ReactJS, Node.js* |  May 2023 - Aug 2023
- Developed a serverless multi-cloud online trivia game, showcasing real-time competition and progress tracking.
  - Architected a microservices-based solution utilizing both AWS & GCP, demonstrating versatility in cloud platforms.
  - Utilized DynamoDB for persistent storage of user and team data, ensuring data integrity and fast retrieval.
  - Managed backend operations through a combination of Google Cloud Functions and AWS Lambda functions.
- PodcastTranscription** | *ReactJS, Node.js, AWS Lambda, AWS EC2, Transcribe, CloudFormation* |  Sept 2023 - Dec 2023
- Crafted an innovative app for seamless podcast transcription, enhancing accessibility and content discovery.
  - Automated AWS CloudFormation deployment, cutting resource provisioning time by 20% for faster, more efficient system performance.
  - Deployed the frontend on AWS EC2 and managed backend processes through serverless AWS Lambda functions.
  - Focused on high transcription accuracy, rapid processing speed, scalability, user-friendly interface, and cost efficiency.

## PROFESSIONAL EXPERIENCE

- Software Development Engineer** | *JPMorgan Chase & Co.* Jun 2021 – Sept 2021
- Contributed to the development of enterprise-level applications utilizing Java-J2EE and the Spring framework, showcasing strong technical and collaborative skills.
  - Implemented REST APIs within a layered Spring architecture and utilized Hibernate for database operations.
  - Attained practical expertise in the application of software development methodologies, securing adherence to industry best practices and standards in software design and implementation.
  - Enhanced understanding of cloud technologies through coursework, excelling in a dynamic corporate setting.
- Web Developer** | *Institute of Plasma Research* Dec 2021 - May 2022
- Mastered full-stack web solutions with seamless API and backend integrations, showcasing deep knowledge of internet protocols (HTTP, TCP/IP, web sockets) for enhanced data flow and system efficiency.
  - Implemented centralized application state management using Redux for data synchronization with the database.
  - Fostered team excellence through targeted mentorship, streamlined code reviews for optimal quality, and strategic architectural guidance for scalable web solutions.
  - Drove a 70% improvement in web application performance through strategic caching, asynchronous programming, and code optimization, significantly elevating user experience.

## EDUCATION

- Dalhousie University, Halifax, NS** Jan 2023 – Present  
Master of Applied Computer Science CGPA: 3.8/4.3
- Dharmsinh Desai University, Nadiad, Gujarat** Jul 2018 – May 2022  
Bachelor of Technology in Computer Engineering CPI: 8.1/10.0