RAJ VENKAT REDDY MAVURAM

(765) 426-9059 | mrajvenkatreddy@gmail.com | LinkedIn | GitHub | Portfolio | Austin, TX

EDUCATION

Purdue University

Jan 2023 – Dec 2024

Master of Science in Computer Science

West Lafayette, Indiana

EXPERIENCE

Software Developer, Purdue University, West Lafayette, Indiana

May 2023 - Dec 2024

- Collaborated closely with researchers and professors to develop a web application leveraging HTML, CSS, JavaScript
 (ES6+), and React; optimized design elements using lazy loading to reduce screen load time.
- Defined API endpoints using **FastAPI**, ensuring seamless communication between front-end and back-end systems, ensuring system reliability.
- Maintained database schemas in **PostgreSQL**, incorporating pagination and indexing to lessen average querying time by 40%, ensuring efficient data retrieval for high-traffic operations.
- Launched a workflow analyzer on **AWS**, focusing on improving readability for developers, employing **EC2**, **CloudWatch** and **RDS** to ensure seamless collaboration and data integrity.

Software Engineer 2, Oracle, Hyderabad, India

Jan 2022 – Dec 2022

- Developed features for OPERA Cloud using Oracle ADF, ADF Faces, and Task Flows. Integrated Java EE with ADF Business Components (BC4J) for seamless data binding and role-based access control (RBAC), generating \$2M in revenue.
- Designed 5 frontend workflows with **OJET**, leveraging the **MVVM** architecture, building reusable components, shortening development effort by 80 person-hours weekly, and improving UI responsiveness.
- Optimized the performance of OPERA Cloud's REST APIs within OHIP by analyzing SQL execution plans, identifying slow-running queries, and implementing indexing and join optimizations, reducing average response time by 30%.
- Led the design and development of 6 guest-facing workflows, customizing features and functionalities to meet client-specific needs, collaborating with cross-functional teams.
- Configured CI/CD pipelines using **GitLab** to deploy UI and WS servers as **Docker** containers on a **Kubernetes** cluster, leveraging auto-scaling for horizontal scalability and ensuring high availability (99.9% uptime) for OPERA Cloud.
- Developed 8 RESTful APIs for guest profile creation and management using **Java EE** and **JAX-RS**, ensuring modularity for scalability and optimizing SQL queries to improve read performance by 25%.
- Mentored a team of three junior engineers, establishing a structured onboarding program and conducting knowledge-sharing sessions on OPERA Cloud architecture, Oracle ADF, REST APIs and best coding practices.
- Maintained unit tests for OPERA Cloud's REST APIs within OHIP using TestNG, improving test reliability and reducing debugging time by 70%.

Software Engineer, Oracle, Hyderabad, India

Jan 2021 - Dec 2021

- Utilized tools such as **JDeveloper** (IDE), **Chrome DevTools** (debugger), **Maven** (build tools), and **Git** (source control) to streamline daily development tasks, strengthening code quality and version control practices.
- Enhanced OPERA Cloud operations by optimizing guest profile management and loyalty workflows using Oracle ADF's Task Flow-based MVC architecture, improving customer engagement for 10,000+ monthly interactions.
- Refactored SQL queries and PL/SQL stored procedures in **Oracle 19c**, improving query run time by 35% through aggregations, and join optimizations. Enhanced system resilience by adding structured exception handling.
- Excelled in a fast-paced CI/CD **Kanban** environment, participating in feature development and bug resolution within **Agile Scrum** software development life cycle (**SDLC**) methodologies.
- Executed **Selenium** scripts in Java for end-to-end automation testing of OPERA Cloud's ADF-based UI workflows, improving test coverage and reducing manual testing efforts.

SKILLS

Languages: Python, Java/J2EE, JavaScript, C++, SQL, HTML, CSS, Bash, GraphQL.

Frameworks/Libraries: React, Next.js, Spring Boot, Django, Flask, jQuery, Kubernetes, Apache Kafka.

Databases: Oracle, MySQL, MongoDB, PostgreSQL, DynamoDB.

Tools: Jira, Git, Postman, Docker, Jenkins, Eclipse, JDeveloper, SQLDeveloper.

Software Development: Agile Methodologies, AWS (EC2, S3, RDS, CloudWatch), GCP, Microservices, Object-Oriented Programming, Design Patterns, Linux/Unix, Web services.

PROJECTS

• Personal Blog | React | JavaScript | MongoDB | Google Cloud Platform (GCP) | Firebase | Axios.

Created a Personal Blog using React and JavaScript, integrating MongoDB for data storage and Firebase for authentication and hosting on Google Cloud Platform (GCP). Implemented seamless API communication with Axios, enabling efficient data retrieval and updates.

Task Management System | Spring Boot | Maven | Spring JPA | MySQL.

Engineered a scalable task management platform, leveraging Spring Boot and MySQL's efficient data storage. Adhering to object-oriented programming and design patterns, this system enhances user productivity by providing real-time analytics, task tracking, and has logged over 1000 tasks to date, indicating robust usage and reliability.