RAJ VENKAT REDDY MAVURAM

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Software engineer with a strong academic foundation and 3 years of experience in full-stack development, API design, and scalable microservices architecture. Proficient in Python, Java, JavaScript, Typescript and SQL, with expertise in modern frameworks like React and Next.js. Skilled in building distributed systems using Apache Kafka and command in cloud platforms like AWS and GCP.

EDUCATION

Purdue University   **Jan 2023 – Dec 2024**
Master of Science in Computer Science   West Lafayette, Indiana

Vasavi College of Engineering   **Jul 2017 – Aug 2021**
Bachelor of Engineering in Computer Science and Engineering   Hyderabad, India

EXPERIENCE

Web Developer, Purdue University, West Lafayette, Indiana   **May 2023 – Dec 2024**
- Spearheaded creation of an efficient web application leveraging **Next.js** along with **Tailwind CSS** and **Framer Motion**; refined usability metrics by optimizing design elements to shave off 2 seconds from average screen load time.
- Created and maintained complex database schemas in **PostgreSQL**, incorporating indexing and optimization techniques to lessen average query execution time by 40%, ensuring efficient data retrieval for high-traffic operations.
- Defined API endpoints using **FastAPI**, ensuring seamless communication between front-end and back-end systems, resulting in a 15% increase in system reliability.

Software Engineer 2, Oracle India Pvt. Ltd., Hyderabad, India   **Jan 2022 – Dec 2022**
- Engineered key features of Oracle OPERA Cloud, elevating performance and driving **$1.6M** in revenue.
- Designed **12** frontend workflows with **React**, using **hooks** and **Context API** to build reusable components, shortening development effort by **30%** and improving UI responsiveness by **20%**.
- Envisioned **20** RESTful APIs and microservices using **Java 8**+ and **Spring Boot**, ensuring modularity for scalability and reducing response time by **25%**. Tracked system metrics with **Kibana**, **Elasticsearch**, and **Logstash.**
- Boosted external REST API performance by bringing down average response time from **450ms** to **200ms** via caching (**Redis**), query optimization (indexing and pagination).
- Led integration of core **Spring Boot** microservices for three enterprise clients, customizing features and workflows to meet client-specific needs, collaborating with cross-functional teams.
- Architected 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.
- Implemented a cloud-based test management tool on **AWS**, focusing on scalability and reliability, employing **EC2, S3,** and **RDS** to ensure seamless collaboration and data integrity.

Software Engineer, Oracle India Pvt. Ltd., Hyderabad, India   **Jul 2021 – Dec 2021**
- Integrated a design pattern-based approach for booking functionality, streamlining reservation process and supporting **10,000+** monthly reservations maximizing efficiency.
- Refactored **SQL** queries and stored procedures in **Oracle 19c**, enhancing execution speed through indexing, join optimization, and efficient aggregations.
- Utilized tools such as **JDeveloper** (IDE), **Chrome DevTools** (debugger), **Maven** (build tools), and **Git** (source control) to streamline daily development tasks, enhancing code quality and version control practices.
- Mentored a team of five junior engineers, establishing a structured onboarding program and conducting knowledge-sharing sessions on microservices, cloud architecture, and best coding practices.

Software Engineer Intern, Oracle India Pvt. Ltd., Hyderabad, India   **Jan 2021 – Jun 2021**
- 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.
- Employed **JUnit** to redesign Oracle's internal API unit testing, minimizing testing and debugging time by **70%**.
- Minimized bug backlog by **35** issues, highest reduction among all interns in 2021, strengthening product stability.

SKILLS

- **Languages:** C++, Java/J2EE, Python, JavaScript (ES6+), TypeScript, SQL, Go, Bash, C#.
- **Databases:** Oracle, MySQL, NoSQL, MongoDB, PostgreSQL, T-SQL, GraphQL.
- **Frameworks/ Tools:** React, Angular, Next.js, jQuery, Docker, Kubernetes, Spring Boot, Express.js, Node.js, Django, Flask, Kibana, Elasticsearch, Logstash, Jira, Postman, Git, VSCode, SQLDeveloper, Jenkins, Eclipse.
- **Software Development:** AWS (EC2, S3, RDS, DynamoDB), Apache Kafka, Microservices.

PROJECTS

- **Personal Blog | React | JavaScript | MongoDB | Google Cloud Platform | Firebase | Axios.**
  Built a full stack application with Firebase for secure authentication, MongoDB for articles/comments management, and Axios for API integration. Implemented custom React hooks for session management, supporting **200+** users.
- **Voice ChatGPT | OpenAI API | Python | KivyMD | Text-to-Speech | Speech-to-Text.**
  Constructed a voice-enabled ChatGPT application using OpenAI API, Python, and KivyMD, integrating Text-to-Speech (TTS) and Speech-to-Text (STT) functionalities for smooth real-time interaction. Optimized UI/UX with KivyMD.