MAHITHA REDDY

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SUMMARY

- **Software Engineer** with **5 years of experience** designing, developing, and deploying scalable web applications, microservices, and data pipelines using **Java, Spring Boot, Node.js, Python and REST APIs** across cloud-native environments.
- Strong hands-on experience in **frontend development** with **React.js, Redux, JavaScript, HTML5, and CSS3**, delivering responsive UI components and reducing load times and user drop-offs.
- Expertise in **SQL, PostgreSQL, MongoDB, and AWS** to build optimized backend systems, automate ETL workflows, and streamline cloud infrastructure with **Docker, Jenkins, and Kubernetes**.
- Skilled in implementing CI/CD pipelines with tools like GitHub Actions, JUnit, Jest, Cypress and Postman to streamline deployment, minimize errors, and accelerate release cycles within Agile development environments.

WORK EXPERIENCE

Software Engineer (Computer Systems Analyst)   Nov 2023 - Current
McKinsey & Co.   TX

- Designed and deployed scalable **Spring Boot RESTful APIs**, enhancing internal analytics platforms and reducing average response time to under **180ms** for high-volume financial queries.
- Optimized **SQL queries** and data pipelines in **PostgreSQL and MongoDB**, reducing data retrieval time by 40%, improving the efficiency of financial modeling applications.
- Re-engineered key UI modules using **React.js and Redux** for internal banking dashboards, improving component reusability and decreasing user navigation time by 30%.
- Deployed services on **AWS EC2** with **Dockerized containers** using **Kubernetes** and implemented **CI/CD pipelines via Jenkins**, reducing release cycle time by **35%** and deployment errors by **22%**.
- Integrated an **LLM-powered summarization** using **OpenAI GPT APIs** into financial report dashboards, automating key insights extraction and reducing manual analysis effort by **40%** for business consultants.
- Designed a **role-based access control** system with **Spring Security & JWT authentication**, securing 1M+ user sessions per month.
- Developed unit, end-to-end, and **BDD tests** using **Jest, Cypress, and Cucumber**, improving test coverage by 40% and strengthening frontend-backend integration reliability.
- Created an internal anomaly detection engine for financial logs using **Apache Spark with Java APIs**, reducing reporting inconsistencies by **33%** and boosting audit readiness.

Software Engineer   Aug 2023 – Oct 2023
Epsilon   TX

- Formulated data transformation pipelines using **Python (Pandas, NumPy) and SQL**, reducing ETL processing time by **30%**.
- Implemented **message queueing** with **Kafka** to improve real-time data streaming for audience segmentation models.
- Enhanced data storage solutions by migrating **5TB+ of historical data** to **AWS S3 and Redshift**, improving query speeds for analytics reports.

Graduate Assistant   Aug 2022 – May 2023
University Of Houston   TX

- Engineered **a Java-based student records system** integrated with **SQL Server**, streamlining academic data retrieval and reducing administrative query time by 35%.
- Built and deployed a **Spring Boot backend** for an internal faculty portal, enabling role-based access and automated grade submissions for over 1,200 students.
- Conducted sentiment analysis on student feedback using **NLP techniques like spaCy and NLTK**, achieving 85% accuracy.

Application Development Associate   Oct 2020 - Nov 2021
Accenture   India

- Formulated scalable **web applications** using **Java (Spring Boot)** with **React.js,** and **Node.js**, delivering solutions for over 200k users and enhancing platform stability.
- Integrated **Spring MVC REST APIs** with frontend via **Axios**, reducing API response times by 35% and improving data flow in user-facing modules.
- Built reusable components with **React.js** and implemented **Redux** for state management, decreasing application crashes by **25%** in high-traffic sessions.
- Designed optimized database schemas and indexing strategies in **MySQL** to improve data retrieval efficiency, reducing application latency by 40% during peak traffic hours.
- Collaborated with **UI/UX teams** to redesign workflows, driving a **20% boost in user engagement** across mobile and desktop versions.
- Streamlined **cloud deployments** using **AWS Lambda** and **Terraform**, reducing infrastructure costs by 20%.
- Migrated a legacy **jQuery-based dashboard to React.js**, improving maintainability and reducing page load time by **1.2s**.
- Automated unit and integration testing using **JUnit and Mockito**, and conducted **API testing with Postman**, contributing to a 15% reduction in production issues.

Software Engineer   **Sep 2019 - Sep 2020**
Adani   **India**
- Devised **GraphQL web services using Java (Spring Boot)** to handle logistics and shipment tracking, reducing manual tracking errors by **25%**.
- Implemented **Hibernate ORM** for seamless object-relational mapping and data persistence, simplifying database interactions and reducing boilerplate code.
- Developed modular **front-end interfaces** with **React.js** to support logistics workflows, resulting in a 25% increase in task execution speed for internal teams.
- Automated build and deployment workflows using **GitHub Actions**, reducing manual intervention and deployment errors.
- Participated in **Agile development cycles**, managing sprint tasks and refining product backlog using **JIRA** and **Confluence** for smoother delivery.

EDUCATION

University of Houston   TX
Master of Science in Computer Science   **Jan 2022 – May 2023**

JNTUH   India
Bachelor of Technology in Computer Science and Engineering   **Aug 2016 – Aug 2020**

TECHNICAL SKILLS

Languages: Java, Python, SQL, JavaScript
Frameworks & Backend Technologies: Spring Boot, Spring MVC, Hibernate, JSP Servlets, Flask, Pandas, NumPy, SpaCy, Scikit, Node.js, Express.js, RESTful APIs, Microservices Architecture, Spark, Machine Learning, AI
Frontend Technologies: React.js, Redux, WCAG, Storybook, Bootstrap, jQuery, HTML5, CSS3
Databases: PostgreSQL, MySQL, MongoDB, SQL Server, Oracle DB
Cloud Platforms: AWS (EC2, S3, RDS, Lambda, CloudWatch, DynamoDB, Redshift, ECR, IAM)
CI/CD & DevOps Tools: Jenkins, Docker, Kubernetes, GitHub Actions
Testing & Development: Unit Testing, Postman, JUnit, Cypress, Mockito, Jest, Cucumber
Version Control & Collaboration: Git, GitLab, GitHub
Messaging & Streaming: RabbitMQ, Kafka
API & Integration Tools: Postman, Swagger, JSON, SOAP
Project Management & Methodologies: Agile, Scrum, Kanban, SDLC, Jira, Confluence

PROJECTS

News Headline Categorization
- Developed a multi-class text classifier using a custom LSTM network in **PyTorch** to categorize news headlines into topics.
- Preprocessed text with **TorchText** and SpaCy, and trained the model using **GloVe embeddings** with padded batching and early stopping, achieving 88% accuracy on the AG News dataset.

E-Commerce Platform
- Engineered a scalable e-commerce web application using **Node.js, Express.js, and JavaScript**, integrating **RESTful APIs**, **JWT authentication**, and asynchronous processing to handle **10,000+ concurrent users**, increasing transaction throughput by **20%** and reducing latency.

Digital Music Store Data Analysis
- Performed deep-dive analysis on **500GB+ of transactional data** using **SQL**, and visualized consumer behavior patterns with **Matplotlib** and **Seaborn**, enabling data-driven decisions that improved marketing campaign targeting by **15%**.

CERTIFICATIONS

- **AWS Certified Developer Associate**
- **Building LLM Applications With Prompt Engineering, NVIDIA**
- **Data Structure and Algorithms, Udemy**
- **Full Java Script Course, FreeCodeCamp**