SaiManikanta Karnati

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Summary — Software Engineer with **3+ years of experience** in **full-stack development** and **cloud-based systems**. Skilled in **Vue.js** for building **responsive frontends** and **Node.js, Spring Boot** for developing **efficient backend systems**. Experienced in using **AWS** (EC2, S3, Lambda) for deploying and managing applications. Proficient in designing **RESTful APIs** and using **Docker** for containerization to streamline deployments. Passionate about solving technical challenges and delivering **scalable, maintainable**, and user-focused solutions.

Experience

University Of North Carolina At Charlotte   08/2024 – Current
Graduate Teaching Assistant

- **Delivered lectures and conducted coding exercises** on data structures (trees, graphs, hash tables) and algorithms (sorting, searching, dynamic programming) to 75 graduate students.
- Designed custom problem sets and study materials, improving student retention by 95%.
- Provided detailed feedback on 100+ assignments, enhancing student performance by 10%.
- Guided students on **algorithm optimization and time complexity** analysis, fostering hands-on learning.
- Assisted the professor in preparing exam questions and **grading rubrics,** aligning assessments with course objectives.
- Conducted **code reviews** to ensure best practices in Java, Python, and C++ implementations.
- Assisted students in understanding **recursive algorithms and divide-and-conquer strategies**.
- **Graded exams, quizzes, and projects** using a structured rubric, ensuring fairness and consistency in evaluations.

Fully In Control B.V.   01/2024 – Current
Software Engineer

- Enhanced core functionalities, resulting in a **15% increase in sales** and a 20% boost in user satisfaction (based on customer feedback surveys).
- Optimized front-end performance through the implementation of **caching techniques, reducing database calls by 20%** and improving page load times.
- **Engineered a collaborative feature** that increased customer engagement, leading to a 10% growth in active users.
- Developed **real-time chat functionality** using **Meteor Pub-Sub Model** and **Node.js**, enhancing user engagement by **15%**.
- Developed full-stack applications using **Vue.js, Node.js, and Express.js,** improving UI responsiveness by 30%.
- Migrated a legacy **Angular-based application** to **Vue.js**, improving performance and reducing maintenance overhead.
- Designed **RESTful APIs and microservices,** enhancing application modularity and scalability.
- Optimized **MongoDB queries through indexing and aggregation pipelines,** improving performance by 20%.
- Implemented real-time collaboration features using Meteor Pub/Sub, increasing user engagement by 10%.
- Built **component-based UI architecture in Vue.js,** improving frontend scalability and maintainability.
- Integrated third-party APIs to expand application functionality and improve user experience.
- Reduced load times by 25% through server-side caching techniques.
- Designed and **implemented interactive dashboards** using amCharts, enhancing user satisfaction and overall user experience.
- Created real-time data visualizations to provide actionable insights, improving decision-making for end-users.
- **Deployed AWS Lambda functions using Terraform scripts**, automating infrastructure provisioning and improving deployment efficiency.
- Implemented scalable cloud solutions on AWS, leveraging EC2, Lambda, S3, IAM, and CloudWatch.
- **Introduced Playwright for test automation**, cutting down application bugs by 45%, improving release cycle efficiency, and reducing manual testing time by 30%.

Xebia   08/2022 – 12/2023
Associate Software Engineer

– Optimized MongoDB queries with indexing and **MongoDB Atlas Search, improving data retrieval speed by 15%** and reducing server load by 10%.
– **Migrated monolithic applications to microservices architecture**, improving system performance by 15%.
– Re-architected features using **Pub-Sub models**, boosting application performance by 20% and improving UI responsiveness.
– Applied **Design Patterns to streamline feature development**, reducing delivery time by 10% and improving code maintainability.
– Implemented **JWT-based authentication** for secure API access and user management.
– Improved database performance and reduced downtime by 5% through targeted query optimizations and performance tuning.

Xebia   08/2021 – 07/2022
Engineer Trainee

– Contributed to the development of a banking application as part of an internship project, collaborating with a team of 4 developers and completing the project 2 weeks ahead of schedule.
– Worked on implementing key features using React.js (frontend) and Java (backend), improving the application's functionality and user experience.
– **Implemented Redux for state management**, ensuring consistent and predictable application state across components.
– **Created custom hooks** to encapsulate reusable logic, improving code maintainability and reducing redundancy.
– Implemented **lazy loading and code-splitting techniques** in React.js, improving frontend performance.
– Implemented **Spring Security** for authentication and authorization, ensuring secure access to application resources.
– Utilized **Spring Data JPA** for database interactions, reducing boilerplate code and improving efficiency.
– Integrated **Spring MVC** for handling HTTP requests and rendering views, ensuring seamless frontend-backend communication.
– Enhanced user experience by implementing **form validation and error handling in React.js**.

Education

University Of North Carolina At Charlotte
Master of Science in Data Science
Minors: Database Systems, System Design And Implementation, Big Data & Cloud Computing

Certifications

– **AWS - AWS Certified Developer Associate**
– **MongoDB - MongoDB Certified Developer**
– **Infosys - Infosys Certified Software Programmer**
– **Java - NPTEL certified Java Developer**
– **AWS - AWS Academy Graduate - AWS Academy Data Engineering**

Skills

Cloud:	AWS
Frontend:	Vue.js, React.js, Angular, HTML, CSS, Material UI, Tailwind CSS, SAP UI5
Backend:	Node.js, Express.js, Spring Boot, RESTful APIs, Meteor JS, Firebase
Databases:	MySQL, MongoDB
Languages:	Javascript, Java, Python
DevOps:	Docker, Kubernetes, Terraform
Automation:	Playwright
Tools:	Git, BitBucket, JIRA, Confluence, Postman
Methodologies:	Agile, Scrum, Microservices Architecture