

RAJU GOTTUMUKKALA

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Professional Summary

Software Engineer with 2+ years of experience building scalable enterprise applications across fintech, consulting, and AI-integrated platforms. Proficient in Java, Spring Boot, React, Next.js, Node.js, and cloud technologies (AWS/Azure). Experienced in developing microservices, maintaining CI/CD pipelines, and integrating AI/LLM capabilities into production workflows. Committed to writing clean, testable code and collaborating effectively in Agile environments.

Professional Experience

DreamStudio

May 2025 – Present

Full-Stack Developer (AI/ML Integration)

Atlanta, United States

- Architecting a **Next.js and Rust** platform with **embedded AI capabilities**, implementing a **Retrieval-Augmented Generation (RAG)** engine using **PostgreSQL (pgvector)** to ground LLM responses in verifiable environmental datasets.
- Automated **environmental data ingestion pipelines** using **Python and SQL**, integrating Exiobase and Google DataCommons to consolidate **multiple datasets across 50+ categories**.
- Deployed applications on **AWS (EC2, S3, Lambda, RDS)**, implementing **CI/CD pipelines with GitHub Actions and AWS CodePipeline** for automated testing and deployment.
- Configured **Kubernetes clusters** and managed infrastructure using **Terraform and AWS CloudFormation**, enabling consistent development and production environments.
- Set up **monitoring and logging** using **AWS CloudWatch and SNS** for real-time alerting and application observability.
- Leveraged **AI-assisted development tools** (Claude, Cursor) to accelerate feature delivery and maintain **JAMstack architecture** best practices.

Fidelity National Information Services (FIS Global)

Jun 2022 – Jul 2023

Software Engineer

Bengaluru, India

- Contributed to **payment processing systems** supporting **thousands of merchants**, helping maintain **99.9% uptime** during peak transaction periods.
- Developed and maintained **Spring Boot microservices** with optimized **transaction handling and caching strategies**, contributing to a **15% reduction in API response times**.
- Supported cloud infrastructure using **AWS services (Lambda, S3, CloudWatch, SNS)** for event-driven processing and automated alerting.
- Built **React components with Material-UI**, implementing lazy loading and state management improvements to enhance frontend performance.
- Assisted in CI/CD pipeline maintenance using **Jenkins, Docker, and Terraform**, enabling faster and more reliable deployments.
- Increased unit test coverage from **55% to 75%** using JUnit and Mockito, reducing regression issues in production releases.
- Documented API specifications and operational runbooks to support team knowledge sharing and onboarding.

Cognizant Technology Solutions

Nov 2021 – Jun 2022

Programmer Analyst

Hyderabad, India

- Developed **full-stack enterprise applications** using **Java Spring Boot, Angular, and MySQL**, supporting internal business operations.
- Built and maintained **REST APIs** with input validation and error handling, improving integration reliability across dependent services.
- Optimized backend performance by refactoring legacy code and improving **SQL query indexing**, reducing report generation time from **10+ seconds to under 5 seconds**.
- Supported **CI/CD workflows with Jenkins**, assisting in automated testing and deployment configurations.
- Participated in **security reviews**, implementing **role-based access controls (RBAC)** and data encryption standards per compliance requirements.

Education

University of Missouri–Kansas City (UMKC)

Aug 2023 – May 2025

Master of Science in Computer Science - GPA: 3.82/4

Kansas City, MO

Key Projects

VelocIDE - AI-Based Code Editor | [GitHub](#) | *React, Node.js, Docker, OAuth 2.0, gRPC* **Apr 2025**

- Built a web-based IDE integrating multiple LLM providers (Gemini Pro, Claude Sonnet, Llama 3) with autonomous file management capabilities, enabling AI-assisted code generation and modification.
- Designed a **multi-container Docker architecture** with separate services for authentication, AI processing, and code compilation, achieving consistent **sub-100ms response times** for most operations.
- Implemented **OAuth 2.0 and JWT-based authentication** supporting concurrent users with session management, rate limiting, and automated resource cleanup.

Resume Builder - Sandbox Support for Gemini | [GitHub](#) | *Docker, Python, Alpine Linux* **Nov 2025**

- Developed a containerized platform enabling LLMs to autonomously compile LaTeX files in isolated Docker sandboxes, bridging the gap between AI text generation and binary file output.
- Implemented security measures including **command blacklisting**, execution timeouts, and iterative error correction allowing the LLM to self-debug compilation failures.
- Built Docker isolation layer using **Alpine Linux with non-root execution**, environment detection, and stdout/stderr streaming for real-time feedback.

Technical Skills

Programming Languages: Java, Python, JavaScript, TypeScript

Frameworks & Libraries: Spring Boot, React, Node.js, Angular, Tailwind CSS

Cloud Platforms: Amazon Web Services (AWS), Microsoft Azure

Infrastructure & DevOps: Docker, Kubernetes, Terraform, Jenkins, GitLab CI/CD, Nginx

Databases & Caching: PostgreSQL, MySQL, Redis, Memcached, RabbitMQ, Kafka

AI & LLM Integration: Claude, Gemini, OpenAI GPT, Llama 3, Cursor, RAG, MCP

APIs & Security: REST, OAuth 2.0, JWT, RBAC, gRPC, Webhooks

Monitoring & Testing: Prometheus, Grafana, JUnit, Selenium

Methodologies: Agile/Scrum, Sprint Planning, Git