

SREESHMA PATLOLLA

SOFTWARE ENGINEER

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SUMMARY

- Full Stack Engineer with **4 years of experience** designing scalable, distributed systems using **Java, Python, and JavaScript/TypeScript**.
- Strong expertise in **microservices architecture, data pipelines, and API integrations** across **React, Spring Boot, and Node.js**.
- Skilled in deploying **cloud-native solutions** with **AWS, Docker, Kubernetes, and Jenkins**, ensuring high availability, automation, and reliability.
- Recently focused on integrating **AI and LLM-based systems** (Google Gemini, OpenAI APIs) to enhance application intelligence and user experience.

PROFESSIONAL EXPERIENCE

COLOMBO AI

Texas, USA

Software Engineer – AI Intern

Sep 2025 - Present

- Contributing to CAIRO, ColomboAI's context-aware AI orchestrator, focused on integrating LLM-based reasoning and task automation across the app ecosystem.
- Assisting in the development of AI modules using Python (FastAPI) and LangChain, integrating OpenAI and Google Gemini APIs to enable multi-agent collaboration and contextual responses.
- Supporting the frontend integration of CAIRO's intelligence layer within Next.js/React, improving user interaction flow and dynamic component rendering.
- Collaborating with the core engineering team to refine AI workflows for scalable backend - frontend integration.

UNIVERSITY OF TEXAS - ARLINGTON

Texas, USA

Software Engineer

Feb 2025 - Nov 2025

- Built full-stack web applications using React.js and Node.js, simplifying course registration and boosting student, faculty satisfaction by 30% through improved UI flow.
- Optimized PostgreSQL queries, cutting page-load times by 40%, enhancing system responsiveness and supporting efficient access to academic data.
- Automated CI/CD pipelines with Jenkins, integrating build, test, and deployment workflows, reducing manual deployment errors by 80% and ensuring reliable updates across university platforms.
- Designed microservices modules for research management, increasing maintainability and reducing service conflicts.
- Led Agile sprints across a cross-functional team of 6, guiding development efforts, ensuring on-time delivery of features and maintaining 95% sprint completion rate.
- Developed Grafana dashboards that provided real-time performance metrics, improving issue detection speed by 50% and enhanced system uptime and reliability.

UNIVERSITY OF TEXAS - ARLINGTON

Texas, USA

Graduate Research & Teaching Assistant

Sep 2024 - Jan 2025

- Created Python-based data processing pipelines, accelerating research analysis and improving accuracy of results.
- Assisted in building REST APIs for lab projects, enabling students and researchers to efficiently access and manipulate experimental datasets.
- Optimized backend performance by refactoring Java and Python modules, improving API speed and reliability.
- Mentored student teams in Java and Spring Boot, improving coding practices and project outcomes.
- Conducted automated UI testing with Selenium, ensuring software reliability for academic applications.

IBM
Software Engineer
2022

Pune, INDIA
Oct 2021 - Oct

- Optimized Java Spring Boot microservices through SQL query tuning and Elasticsearch integration, cutting API latency by 300ms and saving \$12,000 in annual cloud cost.
- Developed 15+ responsive React UI components using TypeScript and Redux, directly contributing to a 1.8 second page load time for critical client applications.
- Automated Jenkins CI/CD pipelines using Groovy and Docker, eliminating 10 hours per week of manual deployment processes across 3 project environments.
- Migrated high-volume PDF and email workflows to AWS Lambda integrated with API Gateway and CloudWatch, lowering EC2 runtime by 320 hours per year while maintaining peak p95 latency under 800 milliseconds.
- Refactored PostgreSQL and MongoDB database schemas, reducing report generation time from 4.5 seconds to 2.9 seconds and increasing overall analytics throughput by 8,000 transactions per hour.

AIRBNB
INDIA
Software Developer
2021

Hyd,
Nov 2020 - Sep

- Engineered high-throughput Java/Spring Boot microservices for Host Pricing, utilizing Redis caching and query tuning to process 1.2M transactions daily and ensure low-latency real-time serving.
- Automated ETL workflows with PostgreSQL and MongoDB for Host Pricing ML training data, cutting manual processing by 18 hours/week and ensuring reliable data preparation.
- Optimized AWS cloud architecture (ECS, Lambda, EC2) using Docker and Terraform, reducing microservice deployment cycles from 3 days to 1 day for rapid iteration on Host Pricing features.
- Drove front-end performance on the Host dashboard interface via React.js component optimization, improving page load time by 30 seconds for 5000+ daily active users.
- Established production reliability for Host services using Grafana monitoring and JUnit test automation, proactively detecting and resolving over 40 critical incidents before production impact.

SKILLS

- **Languages:** Java, Python, JavaScript, TypeScript, SQL
- **Frameworks & Libraries:** Spring Boot, Hibernate, React.js, Node.js, Express.js, LangChain, FastAPI
- **Web Services:** RESTful APIs, JAX-RS, JAX-WS, Swagger
- **Databases:** PostgreSQL, MySQL, MongoDB, Cassandra, Oracle
- **Cloud & DevOps:** AWS (EC2, S3, Lambda, CloudWatch, EKS, RDS), Docker, Kubernetes, Jenkins, Terraform, Pivotal Cloud Foundry (PCF)
- **Testing & Automation:** JUnit, Selenium, Mockito, Jest, TestNG, Mocha, Chai
- **Monitoring & Observability:** Grafana, Prometheus, APM, Logging
- **Version Control & CI/CD:** Git, GitHub, GitLab, SVN, Jenkins pipelines, Maven
- **Methodologies:** Agile (Scrum), Test-Driven Development (TDD), CI/CD automation

EDUCATION

UNIVERSITY OF TEXAS AT ARLINGTON | USA
Master of Science in Computer Science

JAN 2023 - DEC 2024

PROJECTS & CERTIFICATIONS

- **AI-Image Generation Platform** | MERN Stack and OpenAI DALL-E API | [Live Demo](#)
- **AI-Mock Interview Platform** | NEXT.js, Firebase, and Google Gemini LLM | [Live Demo](#)
- **Google Cloud Computing** (Elastic Google Cloud Infrastructure: Scaling and Automation | Elastic Cloud Infrastructure: Containers and Services | Essential Google Cloud Infrastructure: Core Services) - Coursera
- **Introduction to Cybersecurity Tools & Cyberattacks** – IBM
- **Explore ML Program (Google AI)** – Google.