Poojith Reddy Annachedu

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SUMMARY

Software Engineer with over 4 years of experience in designing and developing scalable web applications, microservices, and AI-integrated platforms. Proven track record across fraud detection, payroll systems, and agent-based architectures. Strong in backend engineering, cloud deployments, and building reliable production-grade systems that solve real-world business problems.

WORK EXPERIENCE

Kaplan Software Engineer May 2024 – May 2025 Chicago, United States

- Built a presentation generation tool using Reveal.js and enhanced an MCQ generator by integrating Plate.js with Next.js to enable dynamic editing capabilities. Utilized Redux Toolkit for state management, leading to a 25% increase in UX.
- Engineered AI workflow orchestration by integrating LangGraph for agent communication and Gemini 1.5 for structured LLM outputs. Used Redis to cache frequently accessed results, reducing response time and improving system efficiency by 30%.
- Implemented CI/CD pipelines with GitHub Actions and Docker for automated deployments to Firebase Functions and GCP Cloud Run. Managed Firestore and Authentication, and enabled real-time debugging via LogRocket, achieving zero-downtime rollouts.

ADP

Software Engineer

Apr 2021 – Jul 2023 Hyderabad, India

- Developed and optimized backend services for the ADP Payroll Fraud detection system using Spring MVC, Kafka, and Spring Data JPA, resulting in a 60% increase in system throughput and reduced fraud processing latency.
- Implemented secure data logging using AWS Lambda and S3, enhancing traceability and audit readiness while improving W-2 processing speed $14\times$ and reducing API response time by 55% for ADP's Wage Payments system.
- Integrated method-level Spring Security to enforce role-based access, enhancing ADP data protection and compliance.
- Assisted in migrating 120+ enterprise applications from EV5 to EV6 using ADP's OneNext tool, leveraging AWS cloud services.

Prometheus Patent Services

 ${\rm Dec}\ 2020-{\rm Mar}\ 2022$

Hyderabad, India

Software Developer Intern & Software Engineer

- Optimized IP workflow automation by developing and deploying a Jakarta EE-based patent management system, reducing manual workload and ensuring 99.9% deadline compliance using Java Servlets, JSPs, and MySQL.
- Designed a scalable Spring Boot-powered patent search API with multi-threading and indexing optimizations, improving data retrieval speed by 35% while processing millions of legal documents in MySQL and NoSQL databases.

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, Go, C, C++, SQL, HTML, CSS

Web Technologies & Frameworks: ReactJS, NextJS, Redux, JSON, XML, SOAP, REST API, GraphQL, FastAPI, Node.js, Git Core Java: Java 8–21, J2EE, Jakarta EE, JSP, Servlets, Hibernate, JPA, JDBC

Spring Ecosystem: Spring Boot, Spring MVC, Spring Security (OAuth2, JWT), Spring Data JPA, Spring Cloud, Spring Test Databases & Messaging Systems: MySQL, PostgreSQL, MongoDB, Elasticsearch, Firebase, DynamoDB, Kafka, SNS Cloud Platforms & DevOps: AWS, GCP, Docker, Kubernetes, Jenkins, GitHub Actions, Prometheus, Grafana, Tempo, Loki Software Engineering Practices: Microservices Architecture, Design Patterns, Object-Oriented Programming, Data Structures & Algorithms, High-Level Design, Low-Level Design, Test-Driven Development, Agile, CI/CD Pipelines

PROJECTS

RetailPulse | Spring Boot, Kafka, MongoDB, MySQL, Docker, Kubernetes, Resilience4J, Prometheus, Grafana

GitHub 🗹

- Built Spring Boot microservices for retail workflows (products, orders, inventory, notifications); deployed via Docker and Kubernetes
- Implemented Kafka communication secured with Keycloak and Resilience4J to decouple services and enhance fault tolerance.
- · Architected real-time observability using Prometheus, Grafana, and Loki, streamlining system diagnostics and cutting debugging time

SmartHomes | Java Servlets, React. js, Fastapi, Elasticsearch, Docker, OpenAI, RAG, JavaMail

GitHub 🗹

- Engineered a full-stack e-commerce platform with role-based access and modular product, order, and cart workflows.
- Integrated GPT-40 via LangChain and FastAPI with embeddings for Elasticsearch-powered semantic search and AI ticket triaging
- Containerized application using Docker, implemented CI/CD pipelines, and automated email notifications via JavaMail

EDUCATION

Illinois Institute of Technology, Chicago, IL Master's in Computer Science (MCS), CGPA: 3.5/4.0 Aug 2023 – May 2025 Awarded \$12,000 scholarship

AWARDS & CERTIFICATIONS

- AWS Certified Cloud Practitioner and Associate Developer, Start Tech Certified SQL developer
- Certified in Problem Solving and Python Programming; achieved a Python Gold-level badge on HackerRank
- Solved over 500+ coding problems on LeetCode, InterviewBit, and HackerRank, demonstrating proficiency in DSA.