

Raya Meresa
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SENIOR FULL-STACK DEVELOPER

A senior full-stack engineer with over 13 years of experience building enterprise and financial systems end to end — Java/Spring Boot microservices and secure REST APIs on the backend for Amazon, FedEx, and Citi Bank, with React/TypeScript and Angular on the frontend. I work with agentic AI development tools such as Claude Code, Codex, Cursor, and Amazon Q every day — for work and my own projects — to speed up delivery, while carefully reviewing and validating AI-generated code before it ships. On my own time I build agentic AI systems as well: multi-agent orchestration, tool calling against real APIs, and human-in-the-loop approval workflows. I bring a solid background in event-driven architecture (Kafka), Spring Security, relational database design and query tuning, Git-based CI/CD, containers, and Agile/Scrum delivery.

TECHNICAL SKILLS

AI-Assisted Development: Claude Code • Codex • Cursor • Amazon Q • AI-assisted feature delivery with careful review and validation of AI-generated code • regression and policy guardrails for AI-assisted changes

Agentic AI / LLM: Multi-agent orchestration (LangGraph/CrewAI-style patterns) • Agentic workflow design and automation (n8n) • LLM tool calling — exposing internal APIs and microservices as agent tools • Human-in-the-loop approval gates for critical actions • Agent state and memory management (session state, execution history) • RAG and vector search (pgvector) • Multi-provider model routing and failover (OpenAI, Anthropic Claude, OpenRouter) • Agent observability, tracing, and output evaluation • Prompt engineering • Model Context Protocol (MCP)

Languages: Java (8, 11, 17, 21) • TypeScript / JavaScript • Python • SQL

Backend: Spring Boot • Spring Cloud • Spring Security • Spring Data JPA / Hibernate • Microservices • Secure RESTful APIs • Kafka & Kafka Streams • JMS • FastAPI / Flask • Node.js

Frontend: React • Next.js • TypeScript • Angular • State management & component design • Responsive UI • HTML5 • CSS3 / Tailwind

Cloud & DevOps: AWS (Lambda, EC2, S3, DynamoDB, API Gateway, SQS/SNS, IAM, VPC, CloudFormation, CloudWatch, X-Ray) • Docker • Kubernetes • PCF • Git-based CI/CD (Jenkins, AWS CodePipeline, Bitbucket) • Railway • Vercel

Databases (RDBMS & NoSQL): MySQL • PostgreSQL • Oracle • DB2 • MongoDB • DynamoDB — complex queries, indexing, and performance tuning for high-volume workloads

Quality & Observability: JUnit • Mockito • Cucumber • SonarQube • Splunk • AppDynamics • Dynatrace • Grafana • Prometheus • Kibana • Agile/Scrum

PERSONAL PROJECTS — AGENTIC AI

Hands-on projects I build and run on my own time to deepen my skills in the agentic AI space:

- **AethOS — an agentic AI platform (Python backend, Next.js/React/TypeScript frontend):** LLM-powered specialist agents plan and carry out real infrastructure operations (GitHub, Vercel, Railway deployments) behind human-in-the-loop approval gates, with a React UI where I can watch what the agents are doing, review intermediate steps, and approve critical actions.

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- *Built multi-agent team planning: an LLM expands a named team into per-role execution plans, with each role producing output through a typed contract and a policy gate checked before any action runs.*
- *Implemented multi-provider LLM routing with live model catalogs and automatic failover across OpenAI, Anthropic, and OpenRouter, plus a multi-model "arbiter" that runs structured debates between models and synthesizes a final verdict.*
- *Designed agent state and memory management — session state, long-term memory, and execution history carried across tool calls — along with tracing and automated output evaluation to debug agent reasoning and catch failures.*
- *Added role-based access control and multi-tenancy, a Postgres-backed secrets vault, Stripe billing, and a real-time generative UI canvas with a deterministic fallback.*
- **OutreachSmith** — *an agentic outreach assistant: a multi-step agent pipeline that finds prospects, enriches contact data, and drafts personalized emails, with every send gated behind human review and approval — the agent drafts, but nothing goes out without sign-off.*

EXPERIENCE

Sr. Software Engineer, Amazon May 2023 – Present, Arlington, VA

- *Design and build cloud-native microservices in Java 11/17/21 with Spring Boot, delivering scalable, maintainable services with full design documentation.*
- *Built an end-to-end AI-driven incident management automation (Incident-AI): when an incident lands in ServiceNow, the agent picks it up, analyzes the ticket, pulls the related logs from Splunk monitoring, works out the likely cause, and produces an issue and root-cause report with suggested fixes — keeping a human in the loop for the final decision and approval.*
- *Integrated ServiceNow, Splunk, and GitHub through token-based API access so the agent can correlate an incident with its logs and, when needed, check the relevant repository code for the root cause; this cut incident response and resolution times and improved customer satisfaction.*
- *Work with Amazon Q day to day for AI-assisted development — code generation, refactoring, and unit-test scaffolding — reviewing and validating the output before it merges.*
- *Developed serverless microservices on AWS Lambda with IAM- and VPC-secured access; exposed and integrated APIs through AWS API Gateway.*
- *Leveraged EC2, S3, Auto Scaling Groups, SNS, SQS, and CloudFormation to improve infrastructure reliability, scalability, and performance.*
- *Built a multi-channel communication platform with AWS Pinpoint (SMS, email, push) backed by DynamoDB for high-performance data access.*
- *Partnered with frontend engineers to integrate backend APIs into React and Angular applications, improving functionality and user experience.*
- *Automated CI/CD with AWS CodeBuild, CodePipeline, and CodeDeploy; instrumented services with CloudWatch, Prometheus, Grafana, and X-Ray distributed tracing.*
- *Ensured code quality with Mockito unit and component testing, AOP for cross-cutting concerns, and global exception handling via Spring Controller Advice.*

Technologies used: Java 11/17/21, Spring Boot, AWS (Lambda, API Gateway, DynamoDB, Pinpoint, S3, EC2, ECS, SQS/SNS, IAM, VPC, Route 53), Amazon Q, ServiceNow, Splunk, GitHub APIs, React, Angular

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Sr. Software Engineer, FedEx Feb 2021 – Apr 2023, Irving, TX

- *Led a development team building and deploying microservices for the packages-and-deliveries domain, optimizing delivery times and reducing operational cost.*
- *Secured microservice APIs with Spring Security, handling authentication and authorization across services.*
- *Owned CI/CD with Jenkins and Bitbucket, deploying to PCF cloud infrastructure; authored technical specifications and program documentation.*
- *Applied Spring AOP for cross-cutting concerns; ensured reliability with JUnit/Mockito test suites across the development lifecycle.*
- *Built Splunk dashboards for cross-application log analysis and AppDynamics dashboards for performance monitoring, including node configuration and troubleshooting.*

Technologies used: Java 8/11, Spring Boot, Spring Cloud, Spring Security, Spring AOP, JPA, JUnit, Mockito, Cucumber, MySQL, Jenkins, Bitbucket, PCF, Splunk, AppDynamics

Sr. Software Engineer, Citi Bank Apr 2020 – Jan 2021, Irving, TX

- *Designed event-driven microservices with Kafka and Kafka Streams for real-time data processing across digital banking systems, enabling scalable inter-service communication.*
- *Developed RESTful APIs across the full SDLC, securing endpoints with Spring Security for authentication and authorization; integrated SonarQube to raise code quality and significantly reduce technical debt.*
- *Managed builds and PCF cloud deployments via Jenkins, Bitbucket, and BMC RLM with ServiceNow change management.*

Technologies used: Kafka, Kafka Streams, Java 8, Spring Boot, Spring Cloud, Spring Security, JPA, JMS, JUnit, Mockito, MySQL, MongoDB, Jenkins, PCF, AppDynamics, Splunk

Sr. Software Engineer, General Motors Aug 2019 – Mar 2020, Irving, TX

- *Migrated legacy code to microservices and improved application-wide performance by reducing API response payloads.*
- *Generated REST service templates with Swagger specifications and Yeoman; monitored production with Splunk and Kibana queries.*
- *Structured the project on Spring MVC/Spring Boot patterns; strengthened quality with JUnit, component, smoke, and functional tests.*

Technologies used: Java 8, Spring Boot, Spring Cloud, Spring AOP, JPA, Kafka, JUnit, Mockito, Cucumber, MySQL, Jenkins, Bitbucket, PCF, Splunk, Kibana

Java / Microservices Developer, Citi Bank (TCS) Apr 2018 – Jul 2019, Irving, TX

- *Drove digital transformation of Citi mobile management services to a microservices platform using Spring Boot, Spring Cloud, and Netflix OSS (Eureka, Zuul, Hystrix) on PCF.*
- *Introduced Kafka and Kafka Streams for event-driven, real-time communication between system components.*
- *Delivered RESTful APIs with Swagger specs, SonarQube quality gates, and JUnit/Mockito test coverage; monitored with AppDynamics and Splunk.*

Technologies used: Java 8, Spring Boot, Spring Cloud, Netflix OSS, Kafka, JPA, JMS, JUnit, Mockito, MySQL, Jenkins, Bitbucket, PCF, AppDynamics, Splunk

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Technology Analyst, BNSF Railways (Infosys) Sep 2017 – Apr 2018, Fort Worth, TX

- *Migrated mainframe legacy systems to RESTful/SOAP services with Java, Spring Boot, JMS, and Apache ActiveMQ in an agile onsite/offshore team.*
- *Implemented pub/sub messaging between microservice components using Apache SEDA in-memory messaging, including an initial-load processor consuming from remote ActiveMQ via JMS listeners.*

Technologies used: Core Java, Spring Boot, JMS, ActiveMQ, Apache SEDA, Jenkins, GitHub, IBM Bluemix, Kibana

Java / J2EE Developer, Information Network Security Agency (INSA) Sep 2013 – Nov 2016, Ethiopia

- *Owned the full SDLC for government systems — Document Management, HR, Supreme Court, and License Management — from UML design through delivery.*
- *Saved significant time and cost by building for a single bureau first, then customizing the solution across other regional bureaus; championed reusability, decoupling, and Spring MVC adoption.*

Technologies used: Java, J2EE, Spring MVC, Hibernate, JSP, Servlets, JavaScript, HTML5/CSS, Tomcat, WebSphere, MySQL, JUnit, SVN, JIRA, Jenkins

Java Developer, ZTE Telecom Aug 2008 – Sep 2010, Ethiopia

- *Developed package tracking and routing modules for a logistics management system, minimizing delivery costs and times; translated business requirements into detailed designs, functional specs, and test cases.*

Technologies used: Java, J2EE, Spring, Hibernate, AJAX, JavaScript, JUnit, Tomcat

EDUCATION & CERTIFICATION

- **Master of Science, Computer Science** — Blekinge Institute of Technology, Karlskrona, Sweden (2013)
- **Bachelor of Science, Information Systems** — Addis Ababa University, Addis Ababa, Ethiopia (2008)
- **Java Web Development** — Montgomery College, Maryland (2017)
- **AWS Certified Cloud Practitioner**