Aravind Kumar

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Summary

Java Full Stack Developer (3+ years) with a passion for DevOps and Kubernetes. Leveraging CKAD certification and CKA preparation to contribute to resilient Kubernetes clusters, microservice backend systems, and observability workflows.

Education

Purdue University, West Lafayette, IN, USA — Jun 2023 – May 2025
Master of Science in Computer Science

Anna University, Chennai, TN, India — Jun 2017 – May 2021
Bachelor of Engineering in Computer Science

Experience

Founding Engineer | Part-time | Zentrais, USA — **Oct 2025 – Present**

- Spearheaded the development of the company's initial digital presence, engineering the MVP web application from scratch.
- Automated GitLab/Vercel CI/CD pipelines integrating code quality checks, achieving sub-2-minute production deployments.
- Architected secure data ingestion for 1,000+ users with client-side validations, capturing metrics vital for venture funding.

  Tech Stack: Next.js, Node.js, MongoDB, Tailwind CSS, Cursor, CodeRabbit, Resend, GitLab, Vercel.

Java Full Stack Developer | Co-op | MetLife, USA — **Jan 2025 – Sept 2025**

- Engineered an event-driven architecture using RabbitMQ to decouple the monolith from synchronous external credit score APIs, reducing user wait time by 35% by offloading blocking checks to asynchronous background workers.
- Enhanced fault tolerance by implementing Circuit Breaker patterns with exponential backoff retry policies, preventing cascading failures and preserving system stability during external service downtime.
- Modernized PHP customer portal by rebuilding the frontend in React and Tailwind CSS using a mobile-first design pattern, developing reusable Material-UI components with client-side validation to enhance accessibility.
- Actively participated in an Agile team to define project requirements and architecture, taking ownership of the notification microservice from design to deployment, ensuring on-time delivery.

  Tech Stack: Spring Boot, Microservices, RabbitMQ, Resilience4j, React, Material-UI, Tailwind CSS, Docker, AWS SDK.

Java Full Stack Developer | Full-time | LTIMindtree | Client: Citi Bank, India — **Aug 2021 – May 2023**

- Built a React.js dashboard using OrientDB Graph APIs for interactive data lineage visualization, cutting database cluster migration planning from 2 days to 15 minutes by revealing object dependencies.
- Optimized a large-scale data download process by implementing multithreading with Java's Executor Service, improving system efficiency and reducing total runtime by 50%.
- Migrated the validation pipeline causing bottlenecks in customer information processing to Spring Boot, implementing 35+ business rules with Java Streams and JPA, reducing validation time by 30 minutes.

  Tech Stack: Java, Spring Boot, React.js, OrientDB, Multithreading, Hibernate/JPA, JUnit, Mockito, SonarQube.

Certifications

- **CKAD: Certified Kubernetes Application Developer** | The Linux Foundation | *Score: 91%*
- **Oracle Certified Java SE 11 Developer** | Oracle

Projects

Reactor | Serverless CI/CD Pipeline | React, Node.js, AWS SQS, CodeBuild, Lambda, DynamoDB

- Engineered a resilient deployment pipeline by isolating builds in AWS CodeBuild and implementing an SQS Dead-Letter Queue (DLQ) to automatically handle message failures, ensuring 100% queue uptime.
- Architected an event-driven notification system by linking DynamoDB Streams to AWS Lambda, pushing live status updates to the React client via AWS API Gateway WebSockets.

Technical Skills

Languages: Java, C++, Python, JavaScript/TypeScript, SQL, Bash
Cloud & DevOps: Kubernetes, Docker, Helm, ArgoCD, AWS (Lambda, S3, DynamoDB, SQS, CodeBuild)
Full Stack: Spring Boot, Node.js, Next.js, React, Redux, Flask, Jest, RabbitMQ, Tailwind CSS
Tools: Git/GitHub, MongoDB, MySQL, Postman, Cursor, CodeRabbit