Aditya **Aralimara**

Senior Full Stack Engineer

Bengaluru, India

Summary

Senior Full Stack Software Engineer with a Master's in Computer Science and over 4 years of experience building high-scale distributed systems and automated AI pipelines. I specialize in designing performance-driven infrastructure that handles millions of real-time transactions while leveraging emerging technologies to solve complex engineering challenges. My expertise spans cloud-native development, distributed systems, and intelligent automation. I have a proven track record of optimizing system throughput, modernizing legacy enterprise platforms, and engineering multi-model vision systems that drive operational efficiency.

Core Competencies:

System Design & Performance: Engineered GS1 Digital Link resolution engines using DynamoDB at the edge, supporting millions of daily redirects with 40% improved latency.

AI & Machine Learning Implementation: Developed multi-model Vision AI pipelines using Claude to automate complex OCR and metadata extraction tasks.

Cloud Engineering & DevOps: Expert in AWS (Lambda, S3, CloudFront, DynamoDB) and implementing robust CI/CD workflows via Jenkins/GitHub Actions, reducing manual overhead by 50%.

Full Stack Modernization: Spearheading migrations from legacy frameworks to modern React/Node.js ecosystems to enhance system maintainability and user-facing performance.

Work Experience

Sr. Full Stack Software Engineer

Remote

Scanbuy Inc. *Dec. 2024 - Present*

- Engineered a production-grade Vision AI pipeline using multi-model orchestration and AWS Lambda, reducing metadata extraction costs by 60% and achieving 3× faster batch throughput.
- Designed a highly scalable GS1 Digital Link QR resolution engine using DynamoDB at the edge, enabling real-time redirection and dynamic URL mapping.
- Optimized QR lookup performance by 40%, reliably supporting millions of daily redirects across global traffic.
- Spearheaded the modernization of legacy enterprise platforms to a React/Node.js ecosystem, significantly improving maintainability and performance.
- Built end-to-end observability for serverless pipelines using Grafana and CloudWatch (metrics, logs, alerting), significantly reducing debugging time and improving production reliability.

Full Stack Software Engineer

New York City, NY

Scanbuy Inc. *Jun. 2022 - Dec. 2024*

- Architected a RESTful API using Node.js and event-driven microservices with a Finite State Machine to automate reporting workflows, reducing manual intervention by 50%.
- Built a multi-dimensional access control system supporting roles and permissions, reducing unauthorized access by 70%.
- Led Agile sprint planning and mentored an intern, ensuring timely and efficient product releases.
- Integrated Jenkins/GitHub Actions to implement CI/CD pipelines, improving deployment frequency and confidence.
- Designed scalable data models and indexing strategies (MongoDB/DynamoDB), improving query performance and system scalability under high load.

Full Stack Software Engineer Intern

New York City, NY

Scanbuy Inc. *Jan. 2022 - May. 2022*

- Designed cache invalidation strategies for SPAs via AWS CloudFront, improving data freshness and UX.
- **Refactored Java-based APIs, reducing server response time by 80%.**
- Built a remote ingestion API using ExpressJS with payload validation via JSON Schema.

Projects

SmartLabel Parser: Multi-Model Vision AI & OCR Pipeline

- Developed a production-grade Vision AI system to automate structured metadata extraction from complex product labels, resolving dense-text accuracy challenges.
- Architected a dynamic model-routing pipeline (Claude/GPT-4o) that balances cost and accuracy, yielding a 60% reduction in token spend.
- Deployed on AWS Lambda with custom Docker layers for Tesseract OCR/Ghostscript, achieving 3× performance gains over traditional batch processing.
- Integrated Pydantic-based schema validation and LLM-assisted post-processing to ensure data integrity and compliance in production workflows.

Meta Ads Campaign AI Automation

- Built an automation system that converts natural language inputs into structured, actionable configurations for Meta ad campaigns, including campaign structure, ad sets, creatives, budgets, and targeting.
- Leveraged the OpenAI API to interpret user intent and transform it into validated inputs compatible with the Meta Marketing API, ensuring platform compliance and correctness.
- Implemented LLM-assisted recommendation logic to suggest targeting parameters such as age ranges, audience characteristics, and campaign structure based on product context and campaign objectives.
- Integrated deeply with the Meta Marketing API to support campaign creation, updates, and budget management, including safe handling of draft vs. published campaign constraints.
- Designed multiple guardrail layers—schema validation, rule-based checks, and fallback defaults—to prevent invalid mutations and ensure reliable automation in production environments.

AGRO-KART

Team Leader

- **Received recognition and 30% funding** from the Karnataka State Council for Science and Technology for addressing agricultural optimization challenges.
- Built a REST API using PHP and developed a platform utilizing machine learning algorithms to **recommend high-yield crops, enhancing farmer decision-making and maximizing productivity** through measurable improvements in crop yield.

Education

M.S. in Computer Science

Newark, NJ, USA

New Jersey Institute of Technology

Jan. 2021 - May. 2022

- Worked as Teaching Assistant in CS 643 (Cloud Computing).

Technical Skills

Backend & Systems: Node.js, Java (Spring, Grails), Python, Microservices, REST, Design Patterns
Frontend & UI : React, GraphQL, MobX, JavaScript (ES6+)
Cloud & DevOps : AWS, Docker, Jenkins, GitHub Actions, CI/CD, Grafana
Data & Storage : PostgreSQL, MySQL, MongoDB, Redis, Elasticsearch
Methodologies : System Architecture, TDD, Agile/Scrum, Observability, API Design

Honors & Certifications

2026 **Certification: Building with the Claude API,** Verified Specialist in Agentic Workflows, RAG, and MCP *Online*
2020 **Award: KSCST State Recognition,** Project Funding for Agricultural Optimization Systems *Karnataka, India*