

Aditya Sugandhi

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SUMMARY

Software Engineer with 5+ years building **large-scale distributed systems** in **Java** and **JavaScript/TypeScript**. Production experience designing and deploying **high-throughput microservices** processing **500K+ transactions/day** with **99.5% availability**. Strong foundation in **data structures**, **algorithms**, and **system design**.

TECHNICAL SKILLS

- **Languages:** Java, JavaScript, TypeScript, Python, SQL, Scala, C++ (familiar), Go (familiar)
- **Backend & APIs:** Spring Boot, Node.js, FastAPI, REST/GraphQL, gRPC, Thrift, API Gateway, OAuth2/JWT, RBAC
- **Frontend:** React, Next.js, TypeScript, HTML/CSS, Responsive Design
- **Data & Storage:** PostgreSQL, MySQL, Redis, DynamoDB, MongoDB, BigQuery, Apache Kafka, Apache Spark
- **Infrastructure:** Kubernetes, Docker, AWS (EKS, Lambda, S3, MSK), GCP, Terraform, CI/CD (Jenkins, GitHub Actions)
- **Practices:** Data Structures & Algorithms, System Design, Code Review, TDD/BDD, Agile/Scrum, On-Call/Incident Response

WORK EXPERIENCE

BAS Software Developer

Florida State University

Nov 2024 – Present

Tallahassee, FL

- **Designed, developed, and deployed** enterprise-scale network management platform; built **37 REST API endpoints** in **Java** and **TypeScript** serving **35K+ devices** across **172+ networks** with **real-time WebSocket** streaming.
- **Led design reviews** with cross-functional stakeholders to evaluate technology choices; architected **event-driven microservices** with **PostgreSQL**, **Redis** caching, and **S3** storage achieving **99.2% system accuracy**.
- **Reviewed code** from 4 team members ensuring adherence to style guidelines, testability, and efficiency; established **code review standards** and **best practices documentation** adopted across the engineering team.
- Implemented comprehensive **test suite** with **360+ unit/integration tests** achieving **85%+ coverage**; built **Grafana/CloudWatch** monitoring dashboards for **system health diagnosis** and **incident resolution**.

Machine Learning Researcher

Prof. Olmo Zavala Romero — FSU

Jan 2023 – Aug 2024

Tallahassee, FL

- **Developed and maintained** distributed data processing system using **Java** and **Spark (Scala)** on **Kubernetes** clusters; processed **1TB+ datasets** with **+40% throughput improvement** through algorithm optimization.
- **Designed and tested** parallel processing pipelines with windowed aggregations; reduced **pipeline runtime by 50%** through data structure optimization and efficient memory management.
- **Contributed to technical documentation** for system architecture and operational procedures; deployed **Prometheus/Grafana** monitoring with automated alerting for **performance issue diagnosis**.

Software Analyst

Aspire Systems

Oct 2020 – Jul 2022

Chennai, India

- **Led architecture design** for **monolith-to-microservices migration** on **AWS**; developed **Java-based event-driven services** processing **500K+ transactions/day** with **99.5% availability** and **20% cost reduction**.
- **Designed and implemented** real-time **payment-style event streaming** using **Kafka** with consumer groups and **DynamoDB**; built fault-tolerant async delivery with dead-letter queues handling **10x traffic spikes**.
- **Participated in design reviews** evaluating distributed system patterns; authored **technical documentation** for microservices architecture, API contracts, and operational runbooks.
- **Triaged and debugged** production issues using **Prometheus**, **Grafana**, and **CloudWatch**; reduced **MTTR by 60%** through systematic root cause analysis and automated remediation workflows.
- **Mentored 5 developers** on **Java best practices**, **code review standards**, and **testing methodologies**; achieved **90% test coverage** with comprehensive **TDD/BDD** implementation.

PROJECTS

- **Payment Transaction Processing System** — Designed and developed **high-throughput transaction processing service** using **Java** and **Kafka**. Implemented **exactly-once semantics**, idempotency patterns, and **distributed transaction handling** processing **10K+ transactions/sec**. Built comprehensive **test suite** with unit, integration, and load tests. Tech: **Java, Kafka, PostgreSQL, Redis, Docker, Kubernetes**.
- **Full-Stack Analytics Dashboard** — Built **React/TypeScript** frontend with **Node.js** backend for real-time metrics visualization. Implemented **13 API endpoints** with **OAuth2** authentication, **time-series analytics**, and configurable alerting. Wrote extensive **documentation** and conducted **code reviews** for team contributions. Tech: **TypeScript, React, Node.js, PostgreSQL, Redis**.
- **Distributed API Gateway** — Architected **scalable API gateway** with **rate limiting**, **circuit breakers**, and **distributed tracing**. Designed for **large-scale systems** handling **1000+ req/sec** with **sub-100ms latency**. Implemented comprehensive **system health monitoring** and **debugging tools**. Tech: **Java, Python, Kafka, Kubernetes, Terraform**.

EDUCATION

Florida State University
M.S. in Computer Science

Tallahassee, FL

- Relevant Coursework:** Data Structures & Algorithms, Distributed Systems, Advanced Database Systems, Data Communications

SRM Institute of Science & Technology
B.Tech. in Computer Science

Chennai, India

PUBLICATIONS & CERTIFICATIONS

- Review Classification & False Feedback Detection (IJAST) | AWS Solutions Architect (Udemy, 2024)