

# Aditya Sugandhi

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## SUMMARY

Software Engineer with 5+ years building **large-scale release infrastructure** and **distributed systems** in **Java** and **Python**. Expert in **CI/CD pipelines**, **release workflows**, **build automation**, and **feature flag gating** with production experience shipping OS-level updates to **millions of devices**.

## WORK EXPERIENCE

<b>Software Engineer</b> Florida State University	Nov 2024 – Present Tallahassee, FL
<ul style="list-style-type: none"><li>Designed and developed enterprise-scale infrastructure management platform in Java and TypeScript; built 37 REST API endpoints serving 35K+ networked devices across 172+ networks with real-time WebSocket telemetry streaming.</li><li>Led design reviews with cross-functional stakeholders to evaluate technology choices and system architecture; architected event-driven microservices with PostgreSQL, Redis caching, and S3 storage achieving 99.2% system accuracy.</li><li>Built automated CI/CD pipelines with GitHub Actions for build, test, and release workflows; implemented feature flag gating, automated security checks, and release artifact generation across multiple deployment environments.</li><li>Reviewed code from 4 team members enforcing style guidelines, testability, and efficiency; maintained 360+ unit/integration tests at 85%+ coverage with Grafana/CloudWatch monitoring for issue diagnosis and resolution.</li></ul>	
<b>Software Engineer, Research</b> Florida State University	Jan 2023 – Aug 2024 Tallahassee, FL
<ul style="list-style-type: none"><li>Developed and maintained distributed data processing infrastructure using Java and Spark (Scala) on Kubernetes clusters; processed 1TB+ datasets with +40% throughput improvement through algorithm optimization and efficient data structures.</li><li>Designed parallel processing pipelines with windowed aggregations and compute-optimized scheduling; reduced pipeline runtime by 50% through data structure optimization and memory-efficient batch processing.</li><li>Contributed to technical documentation for system architecture and operational procedures; deployed Prometheus/Grafana monitoring with automated alerting for performance issue triaging and resolution.</li></ul>	
<b>Software Engineer</b> Aspire Systems	Oct 2020 – Jul 2022 Chennai, India
<ul style="list-style-type: none"><li>Led architecture design for monolith-to-microservices migration on AWS; developed Java-based event-driven services processing 500K+ transactions/day across distributed infrastructure with 99.5% availability and 20% cost reduction.</li><li>Designed and implemented build and deployment automation using Jenkins, Docker, and Kubernetes; established release workflows with security scanning, artifact versioning, and automated rollback reducing release time by 65%.</li><li>Participated in design reviews evaluating distributed system patterns and infrastructure decisions; authored technical documentation for microservices architecture, API contracts, and operational runbooks.</li><li>Triaged and debugged production issues across hardware, network, and service layers using Prometheus, Grafana, and CloudWatch; reduced MTTR by 60% through systematic root cause analysis and automated remediation.</li><li>Mentored 5 developers on Java best practices, code review standards, and testing methodologies; achieved 90% test coverage with comprehensive TDD/BDD implementation.</li></ul>	

## PROJECTS

- Release Build Orchestration System** — Designed and developed automated release pipeline using Java and Python for multi-branch build artifact generation. Implemented release gating with security checks, feature flag guards, and signing key management for secure artifact distribution. Tech: Java, Python, Jenkins, Docker, Kubernetes, Terraform.
- Infrastructure Monitoring & Diagnostics Dashboard** — Built React/TypeScript frontend with Node.js backend for real-time system health monitoring. Implemented 13 API endpoints with OAuth2 authentication, time-series metrics, and configurable alerting for build failures. Tech: TypeScript, React, Node.js, PostgreSQL, Redis.
- Distributed API Gateway with Rate Limiting** — Architected scalable API gateway with rate limiting, circuit breakers, and distributed tracing for large-scale service infrastructure. Handled 1000+ req/sec with sub-100ms latency. Tech: Java, Python, Kafka, Kubernetes, Terraform.

## TECHNICAL SKILLS

- Languages:** Java, Python, TypeScript, JavaScript, SQL, Scala, C++ (familiar), Go (familiar), Bash/Shell
- Build & Release:** CI/CD (Jenkins, GitHub Actions), Docker, Kubernetes, Terraform, Feature Flags, Release Gating, Build Automation
- Infrastructure:** AWS (EKS, Lambda, S3, EC2), GCP (GKE, Cloud Build), Linux (Ubuntu/Debian), Systemd, Nginx
- Data & Storage:** PostgreSQL, MySQL, Redis, DynamoDB, MongoDB, BigQuery, Apache Kafka, Apache Spark
- Backend & APIs:** Spring Boot, Node.js, FastAPI, REST/gRPC, API Gateway, OAuth2/JWT, WebSocket, Protobuf
- Practices:** Data Structures & Algorithms, System Design, Code Review, TDD/BDD, Agile/Scrum, On-Call/Incident Response, Documentation

## EDUCATION

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### Florida State University

M.S. in Computer Science

Tallahassee, FL

- **Relevant Coursework:** Data Structures & Algorithms, Distributed Systems, Advanced Database Systems, Computer Networks, Operating Systems

### SRM Institute of Science & Technology

B.Tech. in Computer Science

Chennai, India

## PUBLICATIONS & CERTIFICATIONS

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