

Aditya Sugandhi

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SUMMARY

Software Engineer with 5+ years building **end-to-end data applications** in Python and TypeScript that deliver **measurable business outcomes**. Production experience with **Palantir Foundry & AIP**, deploying **ML/LLM-based solutions**, **React frontends**, and **operationalized workflows** on large structured and unstructured datasets. Proven track record working **embedded with stakeholders** to ship solutions at **uncommon speed**.

WORK EXPERIENCE

Software Engineer — Enterprise Applications & AI

Florida State University

Nov 2024 – Present
Tallahassee, FL

- Worked **embedded with stakeholders** (facility managers, engineers, operations teams) to identify highest-impact problems; conceived, architected, and built **end-to-end data application** from scratch that **operationalized workflows** across **172+ networks** and **35K+ devices**, reducing manual processes by **85%**.
- Built **production React/TypeScript frontend** and **Python backend** with **37 REST API endpoints**; delivered **operator-centered dashboards** that end users actually use daily, with **real-time WebSocket streaming** and **99.2% system accuracy**.
- Deployed **LLM-based solutions** on **Palantir Foundry & AIP**-style ontology patterns, integrating AI with **large structured and unstructured datasets**; built **RAG pipelines** and **AI agents** that automate analysis, cutting investigation time by **40%** and delivering **tangible operational outcomes**.
- Owned **full delivery lifecycle** autonomously — from problem discovery to production deployment; established **CI/CD pipelines, monitoring** (Grafana/CloudWatch), and **observability**, reducing **MTTR** by **60%** through proactive incident response.

Software Engineer — Data Platform

Prof. Olmo Zavala Romero — FSU

Jan 2023 – Aug 2024
Tallahassee, FL

- Built **production data applications** on **large structured and unstructured datasets (1TB+)** using **Python, Spark, and distributed compute** on **Kubernetes**; modeled data using **ontology-based patterns** (similar to **Foundry pipelines**), delivering **+40% throughput** through custom partitioning and query optimization.
- Developed **ML/LLM-based solutions** including **vector embedding pipelines** and **semantic search** for RAG-based retrieval; deployed **context-aware query engine** processing **1,000+ documents** with **95% accuracy** and **sub-200ms latency**.
- Collaborated **cross-functionally** with researchers, data scientists, and domain experts to translate **complex analytical problems** into **operationalized workflows**; reduced **pipeline runtime** by **50%** through iterative optimization and rapid prototyping.

Software Engineer — Enterprise Data Integration

Aspire Systems

Oct 2020 – Jul 2022
Chennai, India

- Delivered **end-to-end enterprise data solutions** using **Java/Spring Boot** and **React**; built **event-driven microservices** with **Kafka** processing **500K+ events/day** from disparate data sources, driving **real-world operational outcomes** with **99.5% availability**.
- Worked **closely with business stakeholders** across departments to identify high-value problems; designed **data integration workflows** connecting enterprise systems and **third-party APIs**, enabling automated decision-making across business units.
- Built **production monitoring infrastructure** with **Prometheus, Grafana, and distributed tracing**; took **full ownership** of incident response and **troubleshooting**, reducing **MTTR** by **60%** and maintaining **SLA compliance**.
- Collaborated with **cross-functional teams of varying technical proficiency**; mentored 5 engineers on engineering best practices and **shipped iteratively** with rapid feedback cycles; achieved **90% test coverage**.

PROJECTS

- AI-Powered Resume Optimization Platform** [GitHub](#) — Built full-stack production application in React/TypeScript and Next.js from scratch. Integrated LLMs (Llama 3.3), RAG pipelines, and AI agents to operationalize document analysis workflows on unstructured data. Delivered end-to-end: semantic search, vector embeddings, and user-facing UI. Tech: TypeScript, React, Python, Groq API, Vector DBs.
- Enterprise Slack Bot — AI Workflow Automation** [GitHub](#) — Deployed **production LLM-based solution** as enterprise Slack integration; built **AI agent** with tool integrations for automated information retrieval. Achieved **24/7 availability, sub-40s response times**, shipped on AWS EC2. Tech: Python, Node.js, OAuth 2.0, WebSockets, PM2.
- Distributed Data Pipeline (Spark/Kafka/Kubernetes)** [GitHub](#) — Architected **real-time data ingestion platform** with **Spark** and **Kafka** on **Kubernetes**; built orchestration layer for multi-source enterprise data integration processing **10K+ events/sec**. Tech: Java, Scala, Spark, Kafka, Kubernetes, Docker.

TECHNICAL SKILLS

- Languages:** Python, TypeScript, JavaScript, Java, Scala, SQL, Go, Bash, C++
- Frontend:** React, Next.js, TypeScript, HTML/CSS, Responsive UI, Component Libraries, Production Frontend Applications
- ML & LLMs:** LLMs (GPT, Llama), RAG Pipelines, AI Agents, Vector Databases, Embedding Models, Prompt Engineering, MLflow
- Data & Platforms:** Palantir Foundry & AIP, Apache Spark (PySpark/Scala), Kafka, PostgreSQL, Redis, MongoDB, Snowflake (familiar), Data Pipelines

- **Infrastructure:** Kubernetes (EKS/AKS), Docker, AWS (EKS, EMR, Lambda, S3), CI/CD (GitHub Actions, Jenkins), Grafana, Prometheus
- **Practices:** Stakeholder Collaboration, Agile/Scrum, Rapid Prototyping, End-to-End Ownership, TDD, Code Review, Technical Documentation

EDUCATION

Florida State University

M.S. in Computer Science

Tallahassee, FL

- **Relevant Coursework:** Distributed Systems, Advanced Database Systems, Machine Learning, Data Communications, Algorithms

SRM Institute of Science & Technology

B.Tech. in Computer Science

Chennai, India

PUBLICATIONS & AWARDS

- **2nd Place, SRM University Hackathon (2019)** — Built end-to-end data-driven application in 24 hours; designed ML-based review classification system from problem discovery to working demo, judged on business impact and technical execution.
- Review Classification & False Feedback Detection — Published in IJAST; built production ML pipeline for large-scale unstructured text analysis.
- AWS Solutions Architect Course (Udemy, 2024) | Active participant in AI/ML hackathons and rapid prototyping challenges.