

Aditya Sugandhi

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SUMMARY

Software Engineer with 5+ years developing and maintaining web applications using **Python**, **TypeScript**, and modern **web frameworks** (React, Angular, Next.js). Experienced adding features to existing products, **debugging** and **troubleshooting** application issues, and integrating **AI/ML capabilities** into production workflows. Strong collaborator in **Agile/Scrum** teams with a focus on **technical documentation**, **testing**, and **system architecture**.

TECHNICAL SKILLS

- **Languages:** Python, JavaScript/TypeScript, Java, SQL, Bash
- **Backend:** FastAPI, Node.js, Spring Boot, Hibernate/JPA, gRPC, RESTful APIs
- **Frontend & Web:** React, Angular, TypeScript, Next.js, HTML/CSS, Component Libraries
- **AI/ML & Data:** LLMs (GPT, Llama), RAG Pipelines, Machine Learning, PostgreSQL, Redis, MongoDB, Kafka
- **Infrastructure:** Kubernetes, Docker, AWS (EKS, Lambda, S3), CI/CD (GitHub Actions, Jenkins), Grafana, Prometheus
- **Practices:** Agile/Scrum, OOP Design Patterns, TDD/BDD, Code Review, Technical Documentation, System Architecture

WORK EXPERIENCE

Software Engineer
Florida State University

Nov 2024 – Present
Tallahassee, FL

- **Developed and maintained** full-stack platform with **Angular** and **React** frontends and **Python/TypeScript** backend; built **37 REST API endpoints** serving multiple internal teams with **real-time WebSocket** updates.
- **Integrated AI/ML features** into existing product workflows, building **LLM-powered automation** and **predictive analytics** modules that reduced manual operational tasks by **40%**.
- **Participated in Agile sprint planning** and **design reviews** with cross-functional stakeholders; authored **technical documentation** for system architecture, API contracts, and onboarding guides.
- Built comprehensive **test suite** with **360+ unit/integration tests** achieving **85%+ coverage**; used **Grafana/CloudWatch** for **debugging, troubleshooting**, and **incident resolution**.

Machine Learning Researcher
Prof. Olmo Zavala Romero — Florida State University

Jan 2023 – Aug 2024
Tallahassee, FL

- **Developed and maintained** distributed data processing system using **Python** and **Spark** on **Kubernetes** clusters; processed **1TB+ datasets** with **+40% throughput improvement** through **algorithm optimization** and clean code practices.
- **Collaborated in Agile team** to design parallel processing pipelines with windowed aggregations; reduced **pipeline runtime by 50%** through **data structure optimization** and systematic **debugging** of performance bottlenecks.
- **Authored technical documentation** for system architecture and operational procedures; deployed **Prometheus/Grafana** monitoring with automated alerting for **proactive issue detection** and resolution.

Software Analyst
Aspire Systems

Oct 2020 – Jul 2022
Chennai, India

- **Added features** to existing product line and **maintained software artifacts** during monolith-to-microservices migration on **AWS**; improved system reliability and reduced infrastructure costs by **20%**.
- **Built Angular-based admin dashboard** for internal tooling; developed reusable **UI components** and integrated with **REST APIs** for real-time data visualization and configuration management.
- **Applied OOP design patterns** (Factory, Strategy, Observer) following team **development methodology**; participated in **design reviews** and authored **technical documentation** for API contracts and runbooks.
- **Debugged and troubleshooted** production application issues using **Prometheus, Grafana, and CloudWatch**; reduced mean time to resolution by **60%** through systematic **root cause analysis**.
- Supported **build, deployment, and production support** efforts; achieved **90% test coverage** with **TDD/BDD** practices and mentored **5 junior developers** on testing methodologies.

PROJECTS

- **Event-Driven Notification Service** — Developed backend service with **Kafka** event streaming and **OOP design patterns**. Implemented reliable message delivery with retry logic and **dead-letter queues**. Built **test suite** with 90% coverage using **TDD/BDD**. Tech: **Python, TypeScript, Kafka, PostgreSQL, Docker**.
- **AI-Powered Resume Platform** — Built **React/TypeScript** frontend with **Python** backend integrating **LLMs** and **RAG pipelines** for intelligent document analysis. Implemented **vector-based semantic matching**, **REST APIs**, and browser-side **ML inference**. Followed **Agile** workflow with iterative releases. Tech: **TypeScript, React, Next.js, Python, LLMs, IndexedDB**.
- **Developer Productivity Dashboard** — Built **Angular/TypeScript** frontend with **Node.js** backend for team metrics and monitoring. Developed **13 REST API endpoints** with **OAuth2** authentication and configurable alerting. Wrote **technical documentation** and conducted **code reviews** for team contributions. Tech: **Angular, TypeScript, Node.js, PostgreSQL, Redis**.

EDUCATION

Florida State University

M.S. in Computer Science

Tallahassee, FL

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

SRM Institute of Science & Technology

B.Tech. in Computer Science

Chennai, India

PUBLICATIONS & AWARDS

- Review Classification & False Feedback Detection (IJAST) | 2nd Place, SRM University Hackathon (2019) | AWS Solutions Architect (Udemy, 2024)