

Sai Sri Harsha Guddati

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EDUCATION

University of Florida

Master of Science in Computer Science, GPA: 3.9/4.0

Jan. 2024 – Dec. 2025

Gainesville, FL

Relevant Coursework: Distributed Systems, Advanced Data Structures and Algorithms, Database Management Systems, Operating Systems, Cloud Computing, Software Engineering, Software Testing

WORK EXPERIENCE

University of Florida, Information Technology

Software Engineer Intern (Full-Stack)

May 2025 – Dec. 2025

Gainesville, FL

- Built and owned **full-stack features** for internal AI and analytics platforms used by **30,000+ faculty and staff**, delivering end-to-end functionality from UI to backend services.
- Developed **high-performance frontend interfaces** using **React (Next.js)** with optimized state management and rendering paths, enabling smooth interaction with datasets exceeding **100K+ records**.
- Designed and implemented **backend APIs** using **FastAPI** and **Celery**, supporting asynchronous workflows, background jobs, and real-time updates.
- Defined and enforced **API contracts** between frontend and backend services, enabling independent iteration and reducing integration regressions across releases.
- Integrated enterprise-grade **authentication and authorization** using **OIDC and SAML**, enabling single sign-on (SSO) and role-based access control across multiple internal applications.
- Improved end-to-end user-perceived performance by profiling API calls and frontend render paths, reducing **P95 latency from 800ms to 480ms**.

Tata Consultancy Services

Software Development Engineer

Aug. 2022 – Dec. 2023

Hyderabad, India

- Developed and maintained **production backend services** using **Java Spring Boot** and **C#/.NET** for enterprise applications supporting **100k daily active users** across multiple business units.
- Designed and implemented **RESTful APIs** with strict request validation and backward compatibility, enabling parallel development across frontend, integration, and data teams without breaking changes.
- Owned **CI/CD pipelines** using **GitLab CI**, automating builds, tests, and multi-environment deployments; supported **weekly production releases** with **zero Sev-1 incidents** over a 12-month period.
- Reduced release errors by standardizing deployments through GitLab pipelines and eliminating manual steps, cutting rollback events by **70%**.
- Worked extensively with **PostgreSQL and MSSQL** databases containing **10M+ records**, optimizing queries and indexing strategies to reduce average API response times by **50%**.
- Collaborated with QA and operations teams during production issues, performing root cause analysis and implementing fixes to prevent recurrence in subsequent releases.

PROJECTS

• ProTerminal: Real-Time Crypto Trading Platform — *FastAPI, React, Kafka, Redis, Docker*

- Built a **full-stack real-time trading dashboard** ingesting live market data from **Binance WebSocket APIs** (BTC, ETH, SOL) and rendering updates in the UI with low latency.
- Designed an **event-driven backend** using **Kafka** for ingestion and **Redis Pub/Sub** for real-time UI updates, ensuring responsive user experience under high message throughput.
- Implemented **whale trade detection** and **entropy-based anomaly analysis** to surface actionable market insights directly in the frontend.
- Built secure **user authentication and profile management** using **JWT, Argon2id, OTP verification**, and encrypted data storage.

TECHNICAL SKILLS

Languages: Python, Java, C#/NET, Bash, SQL, TypeScript

Frontend: React, Next.js, HTML5, CSS3, Client-side State Management

Backend: FastAPI, Flask, Spring Boot, ASP.NET Core

API & Auth: REST APIs, JWT, OAuth2, SAML

Streaming & Async: Apache Kafka, Redis (Pub/Sub), Celery

Datastores: PostgreSQL, MSSQL, Redis

CI/CD: GitLab CI, GitHub Actions

Containers: Docker, Kubernetes (AKS), Helm