

# VENKATA SRI SAI SURYA MANDAVA

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## TECHNICAL SKILLS

**Languages:** Python, Java, C/C++, SQL, JavaScript, HTML, CSS

**Frameworks:** React, Node.js, Express, Flask, FastAPI, MERN

**Cloud & DevOps:** AWS, Docker, GCP, Azure, CI/CD, Git

**Libraries & Data:** Pandas, NumPy, Matplotlib, Scikit-learn

**Certifications:** AWS Certified Solutions Architect – Associate, Microsoft Certified – Azure Fundamentals

## EXPERIENCE

**Crypt0nest.io LLC**, Austin, Texas, United States

**June 2025 – Aug. 2025**

*AI/ML R&D and Product Intern (Team Lead)*

- Owned the design and delivery of a production ML platform used across 3 product teams, building data pipelines and REST APIs in Python, Node.js, and SQL for real-time analysis of 250+ crypto assets
- Improved live prediction accuracy by ~30% by engineering high-signal features (momentum, RSI, MACD, OBV) using CoinGecko Pro, DeFiLlama, and LunarCrush, with SHAP-based explainability in production
- Deployed and scaled ML inference services on AWS with automated CI/CD, cutting release cycles by 40% and achieving sub-100ms end-to-end latency
- Established monitoring, rollback, and health-check workflows, increasing platform reliability and reducing production incidents

**I&T LABS**, Vijayawada, India

**May 2023 – July 2024**

*Full Stack Development Intern*

- Designed and shipped a production academic platform using Node.js, PostgreSQL, and REST APIs, processing 5,000+ records and eliminating 20+ manual hours per week
- Built scalable async services with OAuth2/JWT authentication, consistently maintaining API latency under 250ms under peak load
- Optimized database schema, queries, and indexing to support 1,000+ concurrent users with real-time KPI dashboards
- Improved system stability through structured error handling, logging, and service-level monitoring

**Codegnan IT Solutions Pvt Ltd**, Vijayawada, India

**Aug. 2022 – April 2023**

*Software Engineering Intern*

- Built a MERN-based social platform with real-time WebSocket chat, supporting 2,000+ active users
- Designed secure, async REST APIs with OAuth2/JWT, maintaining sub-250ms response times in production
- Containerized backend services and standardized deployments, enabling predictable weekly production releases
- Refactored backend workflows to improve throughput and reduce runtime failures under load

## PROJECTS

**RoomieConnect | Full-Stack Cloud Expense Management System**

**June 2025 – Sep. 2025**

- Architected and shipped a cloud-native expense platform using Vue.js, Node.js, and PostgreSQL, achieving 98% transaction accuracy in production
- Deployed and operated the system on AWS EC2 with Docker Compose and S3, supporting 200+ concurrent users with 99%+ uptime
- Integrated Stripe payments and role-based access control, reducing payment failures by 45% and cutting feature rollout time by 20%
- Designed fault-tolerant workflows for transaction handling and reconciliation, improving reliability under peak usage

**Crime Analytics System**

**Jan. 2025 – May 2025**

- Architected a secure PostgreSQL data platform with triggers, stored procedures, and RBAC, scaling to 50,000+ records in production
- Built automated ETL pipelines and query optimizations, reducing data duplication by 60% and improving query latency by 40%
- Delivered real-time Tableau dashboards for spatial and temporal analysis, enabling crime hotspot detection with ~85% accuracy

**Blood Sugar Regulatory System**

**June 2023 – April 2024**

- Built backend services to process real-time biosensor and CGM streams, increasing insulin prediction accuracy from 65% to 92%
- Implemented continuous ingestion and validation pipelines, reducing manual monitoring by 50% under live workloads
- Designed automated testing and release workflows, cutting deployment effort by 35% while improving system stability

## EDUCATION

**The State University of New York at Buffalo**, Buffalo, New York

**Aug. 2024 – Jan. 2026**

Master of Science in Computer Science and Engineering

**GPA:** 3.76/4.0

**Coursework:** Algorithms, Machine & Deep Learning, Data Mining, Operating Systems, Databases, Distributed Systems, Security, Computer Vision

**Velagapudi Ramakrishna Siddhartha Engineering College**, Vijayawada, India

**Aug. 2020 – April 2024**

Bachelor of Technology in Information Technology

**GPA:** 8.78/10