

VENKATA SRI SAI SURYA MANDAVA

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TECHNICAL SKILLS

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

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

Developer Tools: Git, Docker, AWS, Google Cloud Platform, Azure, VS Code

Libraries: TensorFlow, PyTorch, Scikit-learn, OpenCV, SHAP, pandas, NumPy, Matplotlib, Apache Spark

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

Publications:

- *Machine Learning Based Automated Blood Sugar Regulatory System*, IEEE, ICSCSS-2024, [Published](#)
- *Precision Agriculture Through Stress Monitoring in Crops with Multispectral Remote Sensing Data*, Springer, ICIPCN -2023, [Published](#)
- *An IoT-based Intelligent Smart Parking System with Effective Communication System*, Springer, FICTA -2023, [Published](#)

EXPERIENCE

Crypt0nest.io LLC, Austin, Texas, United States

June 2025 – Aug. 2025

AI/ML R&D and Product Intern (Team Lead – Machine Learning Track)

- Coordinated ML work across 3 agile teams by creating data pipelines and REST APIs in Python, Node.js, and SQL, supporting real-time analysis for 250+ crypto assets
- Raised model accuracy by ~30% through feature design (momentum, RSI, MACD, OBV) using CoinGecko Pro, DeFiLlama, and LunarCrush, improving interpretability with SHAP
- Shortened release cycles by 40% by running ML services on AWS with automated build and rollout workflows, achieving sub-100ms inference latency

I&T LABS, Vijayawada, India

May 2023 – July 2024

Full Stack Development Intern

- Created an academic performance system with Node.js, PostgreSQL, and REST APIs, handling 5,000+ records and cutting 20+ hours/week through automated grading
- Reduced API response time to under 250ms by developing scalable RESTful services with async handlers and OAuth2/JWT authentication
- Improved scalability and stability through SQL query tuning and indexing, supporting 1,000+ concurrent users and live KPI reporting

Codegnan IT Solutions Pvt Ltd, Vijayawada, India

Aug. 2022 – April 2023

Software Engineering Intern

- Implemented a MERN-based social application with WebSocket-powered chat, serving 2,000+ active users
- Streamlined backend performance by writing async REST APIs secured with OAuth2/JWT, keeping response times below 250ms
- Standardized release workflows by packaging services and automating updates, enabling weekly production releases

PROJECTS

RoomieConnect | Full-Stack Cloud Expense Management System

June 2025 – Sep. 2025

- Created a web application for shared expense tracking using Vue.js, Node.js, and PostgreSQL, maintaining 98% transaction accuracy
- Hosted the system on AWS EC2 with Docker Compose and Amazon S3, supporting 200+ concurrent users while maintaining over 99% uptime
- Added Stripe-based payments and access controls, cutting payment-related issues by 45% and reducing feature rollout time by 20%

Crime Analytics System

Jan. 2025 – May 2025

- Structured a relational PostgreSQL database with triggers, procedures, and role-based access, securely handling 50,000+ crime records
- Built automated ETL pipelines and optimized queries, reducing data duplication by ~60% and improving query performance by 40%
- Presented crime trends and location patterns through Tableau dashboards, helping identify hotspots with ~85% accuracy

Blood Sugar Regulatory System

June 2023 – April 2024

- Engineered an AI-driven insulin regulation system using ensemble deep learning (VotingRegressor), boosting predictive accuracy from 65% to 92%, outperforming LSTM, RNN, and ARIMA models
- Integrated biosensors and CGM devices into a real-time data pipeline, reducing manual intervention in diabetes care by ~50% and enabling continuous monitoring for 24/7 patient data streams
- Improved training and release reliability through model tuning and automated validation, cutting rollout effort by 35%

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

Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, India

Aug. 2020 – April 2024

Bachelor of Technology in Information Technology

GPA: 8.78/10