

# Manav Reddy V

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## Technical Skills

- **Languages:** C, C++, R, Python, SQL, Java, HTML
- **Frameworks and Libraries:** Spring Boot, Spring Security, WebSocket, RESTful APIs, Docker, AWS (EC2, RDS, SNS), Numpy, Pandas, Scikit-learn, TensorFlow
- **Tools and Technologies:** Git, GitHub, Maven, Postman, VS Code, Linux, MySQL

## Professional Experience

### Trainee Analyst – SONIA Futures Trading

Axxela Research & Analytics Private Limited

[Jul'25] – [Present]

- Traded SONIA futures, managing intraday positions and executing short-term rate strategies.
- Analyzed yield curve shifts and macroeconomic trends to identify trading opportunities.
- Monitored P&L, exposure, and risk metrics while optimizing trade execution.
- Built trading discipline and market intuition through live strategy development and review.

## Key Projects

### Real-Time Chat Application

Spring Boot · WebSocket · PostgreSQL (AWS RDS) · AWS SNS · Docker · EC2

- Developed a real-time chat app using Spring Boot, WebSocket, and Spring Security.
- Used AWS RDS (PostgreSQL) for persistent message storage and retrieval.
- Integrated AWS SNS for push notifications to offline users.
- Containerized with Docker and deployed on AWS EC2 for cloud scalability.
- Implemented typing indicators, online presence, and delivery confirmations.

### System Monitoring & Log Analyzer Tool

Java · Multithreading · psutil4j · SQLite · CLI Tools

- Developed a Java-based system monitoring tool to track CPU, memory, disk, and network usage in real time.
- Implemented log parsing using standard Java I/O and simple string-matching rules to detect errors, warnings, and exception messages.
- Designed a multi-threaded architecture to collect OS metrics and process log files concurrently for smoother performance.
- Stored summarized system events in SQLite and generated periodic reports for debugging and performance analysis.
- Built a clean CLI interface to display system health metrics, error summaries, and timestamped alerts.

### Cricket Winner Prediction (AXP Campus Challenge)

American Express Campus Challenge 2024 Finalist

[June'24] - [Jul'24]

Python · Pandas · NumPy · Scikit-learn · XGBoost · LightGBM · Ensemble Modeling

- Developed a robust tree-based ML model to accurately predict winners of T20 cricket matches.
- Conducted thorough data cleaning, normalization, and feature engineering to ensure model relevance.
- Integrated XGBoost and LightGBM with ensemble stacking, using randomized search to fine-tune hyperparameters.
- Achieved an out-of-sample accuracy of 62% with the final stacking ensemble approach.

### Distributed Job Scheduler

AWS SQS · ECS Fargate · Lambda · DynamoDB · CloudWatch · Docker

- Built a distributed task scheduling system using AWS SQS, Lambda, and ECS Fargate for reliable asynchronous job execution.
- Designed a scalable worker architecture with ECS Service Auto Scaling based on SQS queue length and CPU utilization.
- Stored job metadata and schedules in DynamoDB, enabling fault-tolerant and low-latency lookups.
- Implemented CloudWatch dashboards and alarms to track throughput, failure counts, and dead-letter queues.
- Containerized all services with Docker and deployed using AWS-native CI/CD workflows.

## Scholastic Achievements

- **JEE Advanced 2021:** Secured All India Rank (AIR) **2850** in the Common Rank List among 1.4 lakh candidates
- **JEE Mains 2021:** Achieved AIR **2667** in the Common Rank List among 9.3 lakh applicants

## Education

### Indian Institute of Technology, Kanpur

Bachelors in Statistics and data science(2021–2025)