SATYA BHARGAV MADDIPATI

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Education

University of Wisconsin–Madison	**Madison, WI**
MS Computer Science — Machine Learning, AI, Database Systems	*Sep 2025 - May 2027*
Indian Institute of Technology Bombay	**Mumbai, India**
B.Tech-M.Tech Dual Degree with Honors — GPA: 8.5/10	*Aug 2018 - Aug 2023*

Experience

Tata AIA Life Insurance — **Mumbai, India**
Assistant Manager - Data Science — *Jun 2024 - Aug 2025*

- Architected production **Agentic AI systems** using **LangGraph/CrewAI**, processing **daily claims** with autonomous decision-making, reducing manual review by **35%**
- Deployed enterprise **RAG chatbot** serving **50K+ customers** with **GPT-4/Azure OpenAI**, achieving **88% resolution rate** and **0.8s response time**
- Fine-tuned **5+ LLM models** (**Llama 3.2, Qwen 2.5**) using **QLORA/PEFT** for document classification, achieving **94% accuracy**
- Built **MLOps infrastructure** on **Azure Container Apps** with CI/CD pipelines and auto-scaling, maintaining **99.5% uptime**

Tata AIA Life Insurance — **Mumbai, India**
Management Trainee - Data Science — *Jul 2023 - Jun 2024*

- Worked as Management Trainee, gaining cross-functional exposure in insurance operations. Contributed to Direct Sales Force strategy, enhancing product knowledge and sales initiatives.
- Implemented **ensemble ML models** for automated risk assessment and fraud detection, reducing underwriting time from **7 days to 2 hours**
- Worked as part of the DSF strategy team to scale the insurance business, designing a strategy to increase sales by **80% YoY** from 250 Cr (FY24) to 450 Cr (FY25)

Trend Analysis & Forecasting of Air Quality in Urban Environments — **IIT Mumbai,India**
Dual Degree thesis-Prof.B.V.S.Vamsi — *Apr 2022 - Jun 2023*

- De-trending the time series of air quality & removing meteorological effects influencing it by implementing a stochastic approach by implementing signal filtering to air quality time series data using the **KZ** Filter.
- Forecasted air quality by integrating XGBoost and Random Forest models, incorporating extensive meteorological parameters, and leveraging Shapley analysis for unrivaled precision and interpretability.

Projects

Multi-Agent LLM Evaluation Platform — *LangGraph, OpenAI API, Docker, Streamlit* — **Sep 2024**
- Built evaluation platform comparing **GPT-4, Claude, Gemini** with automated judge models, achieving **89% correlation** with expert ratings across **1,000+ test cases**

Real-Time Financial Sentiment Analysis — *FinBERT, Kafka, Redis, FastAPI, AWS* — **Jul 2024**
- Developed real-time system processing **10K+ financial news daily** with fine-tuned FinBERT, deployed on AWS with **99.9% uptime**

Industrial Air Quality Forecasting — *XGBoost, SARIMA, TensorFlow, Docker* — **May 2022**
- Engineered ensemble system combining time-series and ML models for industrial forecasting with **¡15% MAPE** accuracy

Technical Skills

Programming: Python, C++, SQL, JavaScript, R, MATLAB, Java
ML/AI Frameworks: PyTorch, TensorFlow, Scikit-learn, XGBoost, Pandas, NumPy, OpenCV, Hugging Face
LLMs & Advanced AI: GPT-4, Claude, Llama 3.2, Qwen 2.5, LangChain, LangGraph, CrewAI, QLORA, PEFT
Cloud & DevOps: AWS (S3, EC2, SageMaker), Azure (ML Studio, Container Apps), GCP, Docker, Kubernetes, MLOps
Databases & APIs: PostgreSQL, MongoDB, Redis, Pinecone, Weaviate, FastAPI, Flask, REST APIs, Microservices

Achievements

Academic: JEE Advanced Top 0.5% (250K candidates), JEE Mains Top 0.3% (1.58M candidates)
Industry: Tata Innovation Workshop Nominee, Web Coordinator Techfest IIT Bombay, Inter-IIT Bronze Medal