

SATYA BHARGAV MADDIPATI

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Education

University of Wisconsin–Madison

MS Computer Science — Machine Learning, AI, Database Systems

Madison, WI

Sep 2025 - May 2027

Indian Institute of Technology Bombay

B.Tech-M.Tech Dual Degree with Honors — GPA: 8.5/10

Mumbai, India

Aug 2018 - Aug 2023

Experience

Tata AIA Life Insurance

Assistant Manager - Data Science

Mumbai, India

Jun 2023 - Aug 2025

- Architected production **Agentic AI systems** using **LangGraph/CrewAI**, processing **daily claims** with autonomous decision-making, reducing manual review by **35%**
- Designed and developed an advanced RAG-based chatbot for insurance policy recommendations using GPT-4 & LlamaIndex, incorporating semantic chunking, contextual retrieval, and re-ranking for enhanced accuracy.
- Fine-tuned **5+ LLM models (Llama 3.2, Qwen 2.5)** using **QLORA/PEFT** for document classification, achieving **94% accuracy**
- Architected an insurance recommender system processing customer records, embedding interactions, policy attributes, and behavioral patterns for personalized recommendations, enhancing lifecycle value and cross-selling opportunities.
- 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

Dual Degree thesis-Prof.B.V.S.Vamsi

IIT Mumbai, India

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. Seasonality in Time Series Forecasting Different Time Series Forecasting Models.

Eureka Infotech Inc

Data Analyst Intern

Mumbai, India

May 2021 - Jun 2021

- Decreased the runtime of a sales forecasting model from 2.5 days to 145 minutes by re-engineering workflows with batch computing.
- Designed, developed, and Dockerized an AutoML framework integrating multiple ML models with optimization pipelines.

Sree Hanuman Granites

Web & Marketing Intern

Khammam, India

Dec 2020 - Jan 2021

- Built a customer-facing website (HTML, CSS, JavaScript), leading to a 7% increase in sales.

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**

Source Apportionment Using Particle Number Size Distribution Data — GMM, k-Means Jan 2022 - Apr 2022

- Built ML framework combining Multi Log-normal Regression, Gaussian Mixture Models, and Gradient Descent, achieving 25% higher accuracy over PMF baselines for particle size distribution.

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