

ADITYA SANJAY MALKAR

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PROFESSIONAL SUMMARY

Data Science Master's candidate with expertise in Natural Language Processing (NLP), statistical modeling, and financial data analytics. Proven track record in extracting actionable signals from large-scale unstructured datasets and building automated ML pipelines. Committed to driving business value through scalable AI agents and high-integrity data engineering.

EDUCATION

Stevens Institute of Technology – Hoboken, NJ, USA

Anticipated Graduation: May 2026

Master of Science in Data Science | GPA – 3.7

Relevant Coursework: NLP, Statistical Methods, Time Series Analysis, Database Management (SQL), Deep Learning.

University of Mumbai – Mumbai, Maharashtra, India

Graduated: May 2024

Bachelor of Engineering in Computer Engineering | CGPA - 8.37

EXPERIENCE

Prodigy Infotech, (*Machine Learning Intern- Image Classification*) – Mumbai, Maharashtra, India

Aug 2023 - Sep 2023

- Collaborated on VisionNet, improving classification accuracy by 15% via hyperparameter tuning and feature selection.
- Conducted data wrangling and quality checks on large datasets to ensure model reproducibility in a production-like environment.

TechnoHacks Edutech, (*Machine Learning Intern- Model Optimization*) – Nashik, Maharashtra, India

Jul 2023 - Aug 2023

- Implemented Automated Preprocessing Pipelines using SMOTE and outlier removal, reducing processing time by 30%.
- Built an AdaBoost-based model to identify data anomalies, reducing model error rates by 20% through rigorous statistical validation.
- Performed data wrangling on large datasets to ensure model reproducibility and performance monitoring.

SKILLS

- **Programming & Databases:** Python (Pandas, Scikit-learn, Tensorflow, Keras, Pytorch), SQL (Data Extraction), R, Java, C++.
- **NLP & AI:** Sentiment Analysis, Named Entity Recognition (NER), Tokenization, LLMs, LangChain, RAG Pipelines, Whisper.
- **Machine Learning:** Supervised/Unsupervised Learning, Clustering Algorithms, Random Forest, AdaBoost.
- **Data Engineering & Cloud:** Apache Spark, AWS (SageMaker, Bedrock, Glue), ETL/ELT Pipelines, Docker.

ACADEMIC PROJECTS

AI-Powered Agentic Career Advisor, *MS Data Science*

Aug 2025 – Dec 2025

- Architected an autonomous chatbot using AWS Bedrock (Claude V2) and LangChain with goal-seeking capabilities.
- Designed a RAG pipeline that increased response relevance by 40% and reduced model hallucinations by 75%.
- Evaluated AI alignment by designing a safety framework that reduced model hallucinations by 75%.

Comparative Analysis of Financial Data Providers, *MS Data Science*

May 2025 - Jul 2025

- Conducted a 10-year backtest (Yahoo vs. CRSP) identifying a 115% return discrepancy caused by survivorship bias.
- Analyzed impacts of delisting events and corporate actions on financial sector returns, providing actionable data integrity insights.
- Developed a cross-validation dashboard in Python to map feature overlap across providers, validating price correlation at 99.9%.

AI Agent for Automated Licensing (Unstructured Data Extraction), *MS Data Science*

Jan 2025 - Apr 2025

- Engineered a Parser Agent using LangChain to extract 15+ key entities from unstructured PDF documents into standardized JSON.
- Developed a multi-agent system on AWS that reduced manual data entry by ~90% through automated field mapping.
- Built a custom Chrome extension to bridge stored credentials with third-party portals, ensuring seamless data interoperability.

MultiModal Twitter Sentiment Analysis (NLP), *MS Data Science*

Aug 2024 - Dec 2024

- Analyzed and cleaned 1.6 million unstructured tweets using tokenization, lemmatization, and emoji handling.
- Developed a deep learning pipeline (LSTM/Conv1D) achieving 85% accuracy in identifying novel sentiment signals.
- Conducted a comparative analysis between Bi-LSTM and BART models, achieving an 18% higher F1-score than traditional methods

CERTIFICATIONS & LICENSES

AWS Certified AI Practitioner, Amazon Web Services | [Certificate](#)

AWS Certified Machine Learning Engineer Associate, Amazon Web Services | [Certificate](#)

Career Essentials in Data Analysis, Microsoft, [Certificate](#)

AWS Academy Data Engineering, AWS Academy, [Certificate](#)