Dharani Manne

+1 937-219-0088 | dharu.manne@gmail.com | LinkedIn | GitHub | Medium

EDUCATION

Wright State University, Dayton   OH, USA
Master of Science in Data Science; GPA: 3.2   *Jan 2025 – Dec 2026*
- Coursework: Statistical Methods, Machine Learning, Data Science, Database Management Systems, Visualization & Image Processing

Anna University   Chennai, India
Bachelor of Engineering in Computer Science; GPA: 3.6   *July 2020 – Apr 2024*

EXPERIENCE

AI/ML Engineer   Dec 2023 – July 2024
AVASOFT   *Chennai, India*
- Built scalable Python ETL pipelines processing **500K+ social media posts**, improving data quality and model efficiency by **40%**.
- Developed ML-based performance grading system using **Scikit-learn + Flask**, achieving **92% model accuracy**.
- Implemented **AIOps automation** on Azure/AWS to monitor system metrics and detect anomalies, reducing manual effort by **35%**.
- Designed and fine-tuned **LLM assistants** for document summarization and knowledge retrieval, cutting analysis time by **50%**.
- Optimized ETL workflows and SQL queries in **PostgreSQL**, improving API response performance by **30%**.
- Deployed ML/LLM services as **RESTful APIs**, enabling seamless integration across internal applications.

PROJECTS

Credit Card Fraud Detection Using Machine Learning | *Python, Scikit-learn, XGBoost*   Nov 2025 –Present
- Built an end-to-end ML pipeline on **284,807 transactions** with only **0.17% fraud cases**.
- Performed **EDA, feature scaling, and class balancing** using SMOTE to address severe class imbalance.
- Implemented and compared **XGBoost** and **SVM** models for binary fraud classification.
- Evaluated models using **Precision, Recall, F1-score, Confusion Matrix**, and **AUPRC**.
- Improved fraud recall by optimizing threshold tuning and cost-sensitive metrics.

Personalized Motivational Quote Chatbot | *Pandas, Scikit-learn, Streamlit, NLP*   Aug 2025 – Sep 2025
- Built interactive web application providing personalized quotes; preprocessed 75K+ quotes using **Sentence Transformers** and achieved **92%** semantic accuracy through advanced NLP preprocessing techniques.
- Implemented **cosine similarity** algorithms for real-time matching; optimized embedding caching mechanisms that reduced response time by **68%**.
- Designed scalable **Streamlit** interface supporting 500+ concurrent sessions, showcasing expertise in NLP workflows, recommendation systems, and user experience optimization.

Airline Sentiment Analysis | *Python, Pandas, NumPy, Scikit-learn, TensorFlow, NLTK*   April 2025 – May 2025
- Built **ML** (Logistic Regression, Naive Bayes) and **DL** (LSTM, RNN) models to classify 14,640 airline tweets with **87%** accuracy.
- Conducted data cleaning and **EDA**, including visualizations via **Matplotlib** and **Seaborn**.
- Implemented **TF-IDF feature extraction**, improving model performance by **12%**.

Skill-Based Job Ranking Web App | *Python, Pandas, Scikit-learn, Streamlit, NLP*   Feb 2025 – Mar 2025
- Developed web application ranking 1,000+ job postings using **TF-IDF** and cosine similarity, achieving **90%** skill match accuracy.
- Built interactive **Streamlit** interface displaying top 10 job matches in real time.

Movie Recommendation System | *Python, Pandas, NumPy, Scikit-learn*   Nov 2024 – Dec 2024
- Developed content-based recommendation system using **MovieLens dataset (27K+ movies)** with **TF-IDF and cosine similarity**.
- Improved user satisfaction score by **85%** using hybrid filtering (collaborative + content-based).

TECHNICAL SKILLS

Programming & Scripting: Python, SQL, JavaScript
Data Science & ML Libraries: Pandas, NumPy, Scikit-learn, TensorFlow, Keras, PyTorch, SciPy, Matplotlib, Seaborn
Frontend: HTML5, CSS3, JavaScript
Frameworks & Libraries: React.js, Streamlit, Flask
Version Control: Git, GitHub
Backend Development: Python (Flask), RESTful APIs
Database Management: MySQL, PostgreSQL, MongoDB
Visualization & Reporting: Power BI, Tableau, Excel (MS Office Suite), Matplotlib, Seaborn, SAS