

Lakshmi Manaswini Pulicharla

AI&ML Engineer|| Data Scientist|| Data Analyst

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Portfolio: <https://lakshmi@manaswini-7-portfolio-app.streamlit.app/> || Address: 12568 Marine Ave, Saint Louis, MO, 63146

AI/ML Engineer with hands-on experience in developing, deploying, and monitoring machine learning solutions. Skilled in MLOps, data pipelines, and model lifecycle management with expertise in Python, cloud platforms (AWS, Azure, GCP), and CI/CD workflows. Strong background in AI systems, large language models, and data engineering. Adept at collaborating with diverse teams, gathering requirements, and delivering scalable, reliable, and auditable ML solutions.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, C++, C
 - **Libraries & Frameworks:** NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch, Keras, XGBoost, Hugging Face Transformers
 - **Machine Learning:** Regression (Linear, Logistic), Decision Trees, Random Forest, Gradient Boosting, SVMs, Clustering (K-Means, DBSCAN), PCA, Time-Series Forecasting, Anomaly Detection, Reinforcement Learning
 - **Deep Learning:** Neural Networks, Natural Language Processing, Computer Vision (OpenCV, PyTorch/TensorFlow)
 - **AI & ML:** LLMs, Generative AI, NLP, Agentic AI Systems, Model Evaluation & Experimentation
 - **Mathematics & Statistics:** Probability, Inferential statistics, Linear Algebra
 - **Data Visualization:** Matplotlib, Seaborn, Power BI
 - **Databases:** MySQL, SQL Server, RDBMS, Data Warehousing
 - **Version Control & Collaboration:** Git, GitHub
 - **Workflow & Automation:** Jupyter Notebook, Anaconda, VS Code, PyCharm
 - **Cloud & Data:** Azure, AWS, GCP, Docker, Kubernetes, Data Pipelines
 - **MLOps & Deployment:** Docker, Flask, CI/CD, Model Monitoring, Telemetry Tracking
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PROFESSIONAL EXPERIENCE

Learning Assistant | Southeast Missouri State University | Aug 2024 – Present Cape Girardeau, Missouri

- Conduct 1-on-1 and small group tutoring sessions for Computer Science and AI/ML courses.
- Assist students in understanding lectures, coding assignments, and complex technical concepts.
- Supported academic growth through problem-solving guidance, exam preparation, and mentoring.
- Collaborated with faculty to enhance student learning outcomes in AI and programming courses.

Machine Learning & Analytics Intern | Value Information Technology Solutions Pvt. Ltd. | Jan 2023- Dec 2023

- Designed and deployed real-time monitoring dashboards using Kibana, Logstash, Elastic, improving system telemetry tracking and enabling faster anomaly detection.
- Developed and maintained SQL-based data pipelines, reducing query execution time by 30% and ensuring accurate inputs for ML workflows.
- Implemented ML techniques (regression, anomaly detection) for predictive monitoring and performance optimization.
- Built automated analytics workflows in Python, cutting manual reporting time by 50% and supporting business decision-making.
- Supported the creation of scalable ML solutions and contributed to cross-functional collaboration between data science and engineering teams.

ACADEMIC PROJECTS

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- Built an AI-powered chatbot application using Streamlit and Mistral LLM (via Ollama) to convert natural language queries into SQL statements for CSV datasets.
 - Integrated DuckDB for fast query execution and Streamlit UI for interactive result visualization, enabling users to perform data analysis without SQL knowledge.

- Ensured local execution and privacy preservation, allowing secure and efficient querying on sensitive datasets.
- Technologies: Python, Streamlit, Ollama, Mistral LLM, DuckDB, SQL

EDUCATION

Master of Science: Computer and Information Sciences

| December 2025

Southeast Missouri State University

3.72/4GPA

Relevant courses: *Python, Machine Learning, Data Analytics, Software Engineering, Cloud Computing, AI, DBMS*

Licenses & Certifications

- Getting Started with Deep Learning – LinkedIn Learning (Mar 2025)
- Training Neural Networks in Python – LinkedIn Learning (Mar 2025)
- Machine Learning Specialization – DeepLearning.AI (Oct 2024 – Dec 2024)
- ChatGPT Prompt Engineering for Developers – DeepLearning.AI (Aug 2024 – Sep 2024)