

**Lakshmi Manaswini Pulicharla**  
**AI&ML Engineer|| Data Scientist|| Data Analyst**

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Machine Learning Engineer with 1 year of experience in building real-time monitoring solutions, optimizing SQL pipelines, and applying machine learning for anomaly detection and predictive insights. Proficient in Python, SQL, and Scikit-learn, with a proven record of improving system. Skilled in data visualization, statistical modeling, and automation, eager to deliver scalable, data-driven solutions.

#### **TECHNICAL SKILLS**

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- **Programming Languages:** Python, Java, C++,C
  - **Libraries & Frameworks:** NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch, Keras, XGBoost
  - **Machine Learning:** Regression (Linear, Logistic), Decision Trees, Random Forest, Gradient Boosting, SVMs, Clustering (K-Means, DBSCAN), PCA, Time-Series Forecasting, Anomaly Detection
  - **Deep Learning:** Neural Networks, Natural Language Processing, Computer Vision (OpenCV, PyTorch/TensorFlow)
  - **Mathematics & Statistics:** Probability, Inferential statistics, Linear Algebra
  - **Data Visualization:** Matplotlib, Seaborn, Power BI
  - **Databases:** MySQL, SQL Server
  - **Version Control & Collaboration:** Git, GitHub
  - **Workflow & Automation:** Jupyter Notebook, Anaconda, VS Code, PyCharm
  - **MLOps & Deployment:** Docker, Flask
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#### **PROFESSIONAL EXPERIENCE**

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

- **Designed and deployed real-time monitoring dashboards** using **Kibana, Logstash, and Elastic** to track application performance and system health, enabling faster anomaly detection and predictive insights into system behavior.
- **Performed advanced statistical and trend analysis** (time-series forecasting, regression modeling, correlation studies) on **system records**, uncovering key drivers of performance bottlenecks and contributing to a **15% improvement in system reliability**.
- **Developed and optimized SQL-based data pipelines** in **MySQL and SQL Server**, streamlining large-scale data extraction, transformation, and cleaning, which reduced query execution time by **30%** and ensured high-quality inputs for **analytics and ML workflows**.
- **Built an automated analytics framework** in **Python and Playwright**, integrating **data preprocessing, visualization, and scheduled reporting**, which reduced manual reporting by **50%** and provided stakeholders with real-time, actionable insights.
- **Applied machine learning techniques** such as **regression analysis for performance prediction** and **anomaly detection models for outlier identification**, strengthening predictive monitoring and proactive issue resolution.

#### **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**

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Master of Science: Computer and Information Sciences

| December 2025

Southeast Missouri State University

3.72/4GPA

Relevant Course Work: Data Structures & Algorithms, Computer Networks, Software Engineering, Machine learning, Artificial Intelligence, systems and architecture, Advance programming language, Data Analysis.