

Venkata Manideep Patibandla

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SUMMARY

Master's in Computer Science with 3+ years of experience in Data Analysis and Machine Learning. Skilled in Python, SQL, ML model development, and deployment using Flask or Streamlit and AWS. Experienced in CI/CD workflows, data pipelines, and Tableau dashboards, passionate about delivering scalable, data-driven solutions.

SKILLS

Python, SQL | PyTorch, LangChain, Scikit-learn, Azure OpenAI, RAG Workflows | Azure, AWS (Lambda, Step Functions), Databricks, Apache Spark, Snowflake | Git, CI/CD, RESTful APIs, FastAPI | Power BI, Tableau, Streamlit | MLOps, Data Pipelines, A/B Testing, Secure-by-Design.

EXPERIENCE

Data Analyst Intern | One Community Global | New Haven, CT | July 2025 - September 2025

- Researched and prototyped advanced RAG techniques using LangChain and LangGraph across 8+ LLM models (GPT-4, Claude), implementing prompt engineering, chunking strategies, and retrieval optimization with A/B testing frameworks processing 2M+ data points that informed \$200K+ annual model selection decisions and reduced retrieval latency by 40%.

Data Analyst | Happiest Minds Technology | Bengaluru, India | July 2021 - December 2023

- Developed 15+ Agentic AI prototypes using Python, LangChain, and Azure OpenAI API with supervisor and plan-execute workflow patterns, implementing advanced SQL-based data preprocessing pipelines processing 10K+ daily records that reduced compute costs by 35%, query execution time by 50%, and stakeholder feedback cycles by 50% for production AI applications.

Data Analyst Intern | ION Technology Solutions | Vijayawada, India | January 2021 - June 2021

- Designed MLOps workflows with CI/CD pipelines and experiment tracking using Python and SQL, building data preprocessing and transformation pipelines that processed 50K+ daily records, reduced manual processing time by 40%, and enabled real-time model monitoring and evaluation for production deployment.

PROJECTS

AI-Assisted Medical Image Diagnosis | (PyTorch, CNNs, Python (NumPy, SciPy), RESTful API, CI/CD)

- Developed CNN music recommendation system achieving 88% accuracy across 10,000+ songs by extracting 40+ acoustic features, with an automated preprocessing pipeline and RESTful API that reduced feature engineering by 85% and enabled production deployment with CI/CD.

Automated Job Application System | (n8n, GPT-4, OpenAI API, Workflow Automation)

- Developed end-to-end job application automation using n8n and OpenAI API (GPT-4 for resume rephrasing, GPT-4 Mini for skills extraction) that scrapes recruiter contacts from company websites and automatically sends tailored applications, reducing manual effort by 90%.

Sure Step – AI-Based Fall Detection System | (CNNs, OpenCV, AWS Lambda, Edge Computing)

- Engineered a real-time CNN/OpenCV fall detection system on AWS Lambda, achieving sub-3-second response and reducing inference costs by 40% through edge processing and quantization, while maintaining 95% accuracy with CloudWatch monitoring.

Predictive Maintenance for Industrial Equipment | (LSTM, AWS Step Functions, CloudWatch, Time-Series Analysis)

- Built LSTM forecasting solution with automated retraining via AWS Step Functions and Lambda, implementing CloudWatch monitoring that improved accuracy by 30% and reduced maintenance costs.

EDUCATION

Master's Degree | Sacred Heart University | Minor in Computer and Information Science | 3.8

- Recognized by Upsilon Pi Epsilon (UPE) for academic excellence and served as a TA for Database and Data Structures courses.

Bachelor of Technology | GMR Institute of Technology | Minor in Information Technology | 3.6

- Published a research paper on deep learning approaches for mood-based music endorsement systems in Neuroquantology.