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 | Infosoft Solutions |West Windsor, NJ | Aug 2025 - Present

- Engineered ML infrastructure using PyTorch and Python (Scikit-learn, XGBoost) achieving 92% accuracy across 50,000+ records, implementing production-ready systems with RESTful APIs and CI/CD that reduced inference latency by 35% while designing GPU-optimized training pipelines and feature engineering workflows that reduced model development time by 40% through parallel processing and automated validation.

Data Analyst | Happiest Minds Technology | Bengaluru, India | April 2021 - January 2024

- Architected LLM-powered automation platform leveraging GPT-4 APIs with retrieval-augmented generation (RAG), reducing manual processing by 90% through prompt engineering, semantic search, and vector embeddings across 100K+ operations while implementing distributed workflow systems with monitoring and caching strategies that improved throughput by 60% through cross-functional collaboration with product and engineering teams.

Data Analyst Intern | ION Technology Solutions | Vijayawada, India | Sep 2020 - Feb 2021

- Built production PyTorch CNN pipeline for document classification processing 10K+ documents with 91% accuracy, implementing embedding-based similarity search and CI/CD automation that reduced feature engineering by 85% while deploying scalable inference systems with comprehensive monitoring and performance optimization.

PROJECTS

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

- Engineered a deep learning system processing 10,000+ images with 88% accuracy, implementing automated preprocessing and RESTful API with sub-2-second latency and GPU optimization.

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

- Architected intelligent automation with GPT-4 APIs for resume optimization and skills extraction, reducing manual effort by 90% through a multi-stage LLM pipeline and workflow orchestration.

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

- Deployed computer vision system on AWS Lambda achieving sub-3 second latency and 95% accuracy, reducing inference costs by 40% through model quantization and edge computing.

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

- Developed an LSTM forecasting solution with automated retraining, improving accuracy by 30% and reducing maintenance costs by 40% through AWS-based distributed infrastructure.

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.