

Venkatalakshmi Kottapalli

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PROFESSIONAL SUMMARY

Results-driven AI/ML professional with over 4 years of experience developing intelligent systems, AI agents, RAG pipelines, and machine learning models using Python, SQL, MLOps, and cloud technologies, with a strong focus on advancing AI and machine learning innovation.

EDUCATION

Master's in Artificial Intelligence | Yeshiva University | NY | GPA: 4.0/4.0 | Expected Dec 2025

Relevant Courses: Machine Learning, Data Science, Deep Learning, NLP, Cloud Computing

Bachelor's in Mathematics | Adikavi Nannaya University | India | GPA: 3.8/4.0 | Jun 2015 - May 2018

Relevant Courses: Linear Algebra, Statistics, Probability, Calculus

SKILLS

Languages:	Python, SQL, R, Cypher
Databases:	PostgreSQL, Neo4j, FAISS (Vector database)
Frameworks:	Scikit-learn, PyTorch, TensorFlow, Keras, OpenCV, LangChain, LangGraph, NLTK
Cloud & Tools:	Azure, AWS, GCP, Power BI, Visual Studio Code, Jupyter, Excel
API & MLOps:	Flask, FastAPI, REST APIs, MLflow, CI/CD, GitHub, Docker, Kubernetes
AI/ML:	Classification, Regression, Clustering, Time-series forecasting, LLMs, Computer Vision
LLMs & GenAI:	Prompt Engineering, RAG (Retrieval-Augmented Generation), Agentic AI, Transformers

WORK EXPERIENCE

Machine Learning Co-op | ZSAnalytics May 2024 - Present

- Built predictive models for email marketing optimization using Python, Scikit-learn, and machine learning algorithms, achieving 95% accuracy and reducing email delivery costs by 75%.
- Led data acquisition and preprocessing of 10K+ customer records from large datasets using SQL and Python.
- Conducted exploratory data analysis (EDA) using Pandas, Matplotlib to uncover patterns and insights
- Created 10+ features using feature engineering and data manipulation, improving model precision by 12%.
- Validated models through precision, recall, F1-score, ROC-AUC, statistical analysis, and A/B testing.
- Developed and maintained MLOps pipelines in Azure, enabling seamless deployment, model versioning, monitoring, and troubleshooting via MLflow and Git.
- Enhanced campaign ROI by 40%, driving 98% retention by targeting the top 25% responsive users.
- Delivered insights and recommendations through reports and presentations using Excel and PowerPoint.

Software Developer AI/ML | Mee Sahayakaari Jan 2019 - Dec 2021

- Engineered an AI-powered chatbot using Google Dialogflow, Google Translate API, and DuckDuckGo search integration, providing bilingual voice assistance to 5,000+ users.
- Built cross-platform mobile applications using the Ionic framework, achieving 90% customer satisfaction.
- Deployed and hosted the chatbot system on the Play Store, reducing user onboarding time by 40%.

PROJECTS

GenAI Agent: Developed an AI agent leveraging LLMs, LangChain, and LanGraph to automate order processing, account management, and inventory tracking, reducing manual workload by 60%.

RAG-Based Chatbot: Created a Retrieval-Augmented Generation (RAG) Chatbot using LLM and FAISS vector database, delivering 90% accurate, citation-backed responses sourced from domain-specific data.

Fraud Detection: Built an end-to-end ML pipeline using Python and SQL for financial fraud detection, applying supervised and unsupervised learning techniques to achieve 96% accuracy.