

VENKATALAKSHMI KOTTAPALLI

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EDUCATION

Master's in Artificial Intelligence, Yeshiva University, New York City, NY GPA: 4.0; Expected Dec 2025
Relevant Courses: Machine Learning, Data Science, Neural Networks & Deep Learning, NLP, Cloud Computing

Bachelor's in Mathematics, Adikavi Nannaya University, India GPA: 3.8; June 2015 – May 2018
Relevant Courses: Statistics, Probability, Linear Algebra, Matrices, Calculus, Geometry

SKILLS

- **Programming Languages:** Python, SQL, R, Cypher
- **Databases:** PostgreSQL, MySQL, Neo4j, MongoDB
- **Tools:** Visual Studio Code, Jupyter, PowerBI, Azure DevOps, GitHub
- **Frameworks & Libraries:** Scikit-learn, Pandas, PyTorch, TensorFlow, Matplotlib, OpenCV, NLTK, Keras
- **AI & ML:** Data Mining, Data Modeling, Feature Engineering, Data Pipelines, Model Building, Model Evaluation, Model Deployment, LLMs, Transformers, RAG, Hugging Face
- **Cloud & APIs:** AWS, Heroku, Streamlit, GCP, Azure, RESTful API, Flask, CI/CD Pipelines.

WORK EXPERIENCE

Machine Learning Engineer, ZSAnalytics LLC May 2024 – Present

- Boosted email campaign performance by applying machine learning models in Python, advanced feature engineering, and SQL for data acquisition, identifying the top 25% most responsive subscribers.
- Improved text analysis precision by 40% using BERT and NLP techniques to rank closest N CCSS IDs.

Software Developer (AI/ML), Mee Sahayakaari Jan 2019 – Dec 2021

- Developed *Mee Sahayakaari*, an AI-powered voice chatbot app to help illiterate users with technology.
- Integrated Dialogflow, DuckDuckGo search, Google Translator, and speech-to-text/text-to-speech APIs.
- Built responsive cross-platform apps with Ionic and optimized API integrations, reducing latency by 40% and boosting user retention by 30%.

PROJECTS

- **Fraud Detection:** Developed a fraud detection model using Python, SQL, and Machine Learning algorithms integrated with APIs, achieving 96% accuracy in identifying fraudulent claims.
- **X-ray Detection:** Developed a Deep Learning model using CNN to detect heart disease from X-rays, achieving 75% accuracy using PyTorch for image classification.
- **Customer Churn Prediction:** Developed a customer churn model with UI and API integration.
- **SympCheck:** Developed a chatbot using Hugging Face and NLP, deployed on Azure for disease identification based on user-reported symptoms, with a robust API and Streamlit UI for interaction.
- **Heart Risk Prediction:** Built a heart risk prediction app using Random Forest, integrated with a user interface and API, achieving 94% accuracy in predicting heart disease risk.
- **RAG-Based Chatbot:** Built an AI-powered chatbot using Retrieval-Augmented Generation and Mistral-7B LLM to provide citation-backed answers from the *Speech and Language Processing* textbook.

ACTIVITIES

AI Teaching Assistant, Yeshiva University, NY

- Assisting in AI projects and research, focusing on Large Language Models (LLMs) and GenAI.

ACHIEVEMENTS

- **Certificate of Excellence in Machine Learning** – Awarded for an innovative fraud detection project.
- **Python Full Stack Development Certification** – Awarded by BIT Technologies for demonstrated expertise.