

VISHNU SAI REDDY ALLA

New York, NY 10036 | avishnusaireddy17@gmail.com | 551-358-4227 | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EDUCATION

Pace University, Seidenberg School of Computer Science and Information Systems — New York, NY
Master of Science (MS) in Data Science | Concentration: Data Analytics & AI/ML — *Expected May 2027*

Lovely Professional University — Jalandhar, India

Bachelor of Technology (B.Tech.) in Computer Science and Engineering — *May 2022*

Honors: Merit Scholarship | Minor: Machine Learning

TECHNICAL SKILLS

Languages & Frameworks: Python, C/C++, SQL, FastAPI, Flask, Streamlit, React, TypeScript

Machine Learning & AI: TensorFlow, PyTorch, Keras, Scikit-learn, LangChain, Ollama, RAG Architectures

Computer Vision: OpenCV, YOLOv8, Real-ESRGAN, CLIP, Whisper

Databases: PostgreSQL, ChromaDB, Neo4j, MongoDB, SQLite

Cloud & DevOps: AWS, Docker, Git, CI/CD, Linux

Data & Visualization: Power BI, Pandas, NumPy, Matplotlib, Seaborn

PROFESSIONAL EXPERIENCE

Pace University | Machine Learning Engineer (Part-time)

New York, NY — *May 2025 – Sep 2025*

- Built foundational, end-to-end ML systems using **Python, Deep Learning, and TensorFlow** for research applications.
- Increased prediction accuracy by **15%** through model optimization using **Scikit-Learn and Pandas**.
- Automated ML pipelines and tested various neural network architectures including **RAG and NLP** models.

Best Buy | Data Analyst (Remote)

Bengaluru, India — *Jun 2023 – Jul 2024*

- Developed automated web scrapers using **BeautifulSoup and Selenium** to gather market data for competitive intelligence.
- Maintained health and debugging for multiple **FastAPI microservices**, ensuring 99.9% uptime.
- Analyzed large datasets using **SQL and Excel**; presented findings via **Power BI** reports to stakeholders.
- Optimized API endpoints for seamless data retrieval and reporting integration.

Course5i | Junior Data Analyst - ETL & Reporting

Bengaluru, India — *Jun 2022 – Jul 2023*

- Engineered KPI dashboards using **Power BI, SQL, and Python**, reducing manual work by **15+ hours weekly**.
- Built a high-performance asynchronous API using **FastAPI and SQL** for internal task monitoring.
- Enabled real-time CRUD operations, improving team accountability and workflow efficiency.

Intellipaath | Business Development Associate (Internship)

Bengaluru, India — *Oct 2021 – Mar 2022*

- Conducted market research, lead generation, and client relationship management using **Zoho CRM**.
 - Qualified inbound leads and executed outbound campaigns, exceeding monthly targets by **20%**.
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PROJECTS

Synapse — Corporate Manager Intelligence

Technologies: Python, Neo4j, LangChain, RAG, Knowledge Graphs | [GitHub](#)

- Architected a **Graph RAG system** using Neo4j to map complex corporate hierarchies and parent-child company relationships.
- Implemented **multi-hop reasoning** to traverse deep hierarchy trees, achieving **40% faster** entity resolution compared to traditional SQL queries.
- Engineered a **hybrid search architecture** combining vector embeddings (ChromaDB) with Cypher graph queries for superior context retrieval.

AI Lecture Assistant — Multimodal RAG System

Technologies: Python, CLIP, Whisper, ChromaDB, Streamlit, Ollama | [GitHub](#)

- Developed a **multimodal RAG system** enabling semantic search across lecture videos using both visual (CLIP) and audio (Whisper) modalities.
- Built an **agentic orchestration layer** with specialized Video, RAG, UI, and Ops agents for autonomous processing.
- Reduced lecture content discovery time by an estimated **60%** through natural language video querying.

Your Own Private AI Assistant — Privacy-First RAG

Technologies: Python, Ollama, LangChain, ChromaDB | [GitHub](#)

- Engineered a fully **local RAG pipeline** using Ollama-hosted LLMs (Llama 3) for document Q&A without external API calls.
- Implemented end-to-end document ingestion, chunking, embedding, and retrieval achieving **sub-2 second** query response times.

Pizzeria-ot — Deep Learning Intent Classifier

Technologies: Python, TensorFlow/Keras, Flask, NLP | [GitHub](#)

- Developed a **Feedforward Neural Network** for intent classification with **>95% accuracy** on custom pizza ordering datasets.
- Built a Flask REST API exposing `/predict` endpoints for real-time intent recognition with **<50ms latency**.

Movie Critic — Generative LSTM Chatbot

Technologies: Python, TensorFlow, Keras, LSTM, Streamlit | [GitHub](#)

- Trained an **LSTM-based text generation model** on IMDb movie reviews for stylized content creation.
- Implemented temperature-controlled sampling for creative text generation in an interactive Streamlit interface.

4K AI Image Upscaler

Technologies: Python, PyTorch, Real-ESRGAN | [GitHub](#)

- Implemented **Real-ESRGAN** for 4x image super-resolution, restoring realistic textures from low-resolution inputs.
- Achieved high-quality upscaling with batch processing capabilities for production workflows.

Google Search Trends Analysis

Technologies: Python, Streamlit, Power BI, Google Trends API

- Built a real-time trend analysis dashboard using Streamlit for product demand forecasting.
- Created Power BI visualizations to communicate KPIs and actionable recommendations to stakeholders.

LEADERSHIP & ACTIVITIES

Lovely Professional University | Student Assistant & Lab Representative — 2018 – 2022

- Served as primary liaison between 60+ students and faculty, ensuring clear communication of assignments and deadlines.
- Provided technical support to peers, troubleshooting lab PCs and personal laptops.

Isha Foundation | Event Operations & Technical Support — 2022 – 2024

- Led comprehensive AV setup for large-scale events including projectors, screens, and audio systems.
 - Managed logistics for Inner Engineering programs, coordinating with teams and vendors.
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CERTIFICATIONS

- SQL for Data Analytics (Udemy)
- Data Structures & Algorithms (GeeksforGeeks)
- Technical Support Fundamentals (Coursera)
- Fundamentals in Digital Marketing (Google)