

Anany Sharma

Gainesville Florida

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EDUCATION

University Of Florida

Masters in Artificial Intelligence Systems

Relevant Coursework: Computer Vision, AI Systems, Machine Learning for AI, Data Structures, Applied Deep Learning, Advance Neural Networks for Computing, Edge AI and Iot Applications.

Gainesville, Florida

Expected Graduation: May 2026

SRM Institute of Science and Technology

Bachelors in Computer Science;

Relevant Coursework: Artificial Intelligence, DBMS, Data Structures And Algorithms, Software Engineering, Operating Systems.

Chennai, India

June 2021

EXPERIENCE

Software Engineer - AI/Data Science

United Health Group (Optum)

Noida, India

January 2022 - August 2024

- AI and ML Research and Development:
 - Spearheaded development of **multi-modal RAG agents** for real-time interaction with enterprise data and live knowledge article uploads. This increased efficiency of every stakeholder by almost 40%.
 - Developed POCs for **OCR and NLP models** to address business challenges like real time claim receipt validation and accurate information extraction to improve operational efficiency. This reduced the time and cost taken to adjudicate claims automatically by about 20%.
 - Built **Power BI dashboards** for real-time visualization of business performance and KPI tracking.
- Reporting and Analytics: Spearheaded the development of approximately **1.5K reports biweekly** through scheduler automation, covering key financial metrics for business continuity using **MS BI** (SSRS, SSIS, Power BI). Enhanced and maintained the Reporting UI interface on Angular and .NET for ad-hoc reporting.
- ETL: Developed **end-to-end ETL flow maps** on **IBM WTX** to process over **10 million claims monthly**. Deployed workflows on **UNIX AIX Servers** using shell scripts and utilized IBM messaging queues for rapid data transmission.
- Achievements: Received 5 Bravo! awards in 2.5 years for performance recognition.

PATENT PUBLICATION

- **“Crowd Detection and a Method Thereof - IIP(2021)” PATENT** : Developed a **YOLOv5-based** multimodal PPE and mask detection system with high-risk crowd detection, leveraging **Python, Flask, OpenCV, Darknet, and Docker scalability**. Delivered real-time alerts and optimized performance using transfer learning and mAP evaluation.

PROJECTS

- **SMIRE AI - A Medical Multi-Agent system(GenAI)****GITHUB**: An AI-powered medical assistant offering services like appointment booking, doctor/clinic search, medical news, consultations, and health management (reports, dosages, insights(**RAG**)) in a single platform. Tech Stack: **NextJS, FastAPI, Supabase, OpenAI/CrewAI, PostgreSQL, Docker, Git**.
- **CORAS - Context-Based Intelligent Knowledge Retrieval System(GenAI)****GITHUB**: Built a **Retrieval-Augmented Generation (RAG)** system using **OpenAI embeddings, Pinecone vector indexing, Flask API, PyPDF2** for PDF processing, **OpenAI whisper** for audio processing. Integrated **multimodal capabilities** to handle both text and audio data for enhanced knowledge comprehension. Managed the **entire lifecycle** from ideation to deployment, including conceptualization, development, testing, monitoring, and performance evaluation in production. Leveraged **Prometheus and Grafana** for operating and monitoring.
- **RESILITREE - Tree Fall Risk Prediction and Disaster Response (Deep Learning/GenAI)****GITHUB**: Presented at the **UF/IBM Hackathon**. Combined **CNN models (EfficientNet)** in PyTorch to predict tree fall risks, integrated with an **IBM Granite-13B-powered chatbot** for safety guidance. Created an interactive UI based on streamlit with feedback and monitoring implemented using **prometheus and grafana**.
- **KISSAN - Crop Recommendation Model/Chatbot (Deep Learning)****GITHUB**: Presented at the **Smart India Hackathon**. Sourced crop data, annotated labels, and built a recommendation engine. Developed a chatbot interface for user interaction and collaborated effectively to integrate features. Tech Used: Python, Keras, Flask, K-Means Clustering.

SKILLS SUMMARY

- **Languages and Frameworks**: Python, Selenium, ServerSide Web Application Frameworks(Django, Flask, Fast API), Flutter, Dart, Angular, Docker, Git, SQL, NoSQL, Cosmos DB, MongoDB, Redis Storage.
- **Technologies**: Computer Vision, Natural Language Processing, Machine Learning, Deep Learning, IBM WatsonX AI, Open AI, LangChain, CrewAI, LangGraph Azure AI Studio, Azure Function App, Azure ContainerRegistry, RESTful API, API Integration, WebSocket, Docker, Flutter, Git, IBM WTX, MSBI(SSIS, SSRS), NextJS, ReactJS, Power BI.