Anany Sharma

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Education

University Of Florida — Gainesville, Florida
Masters in Artificial Intelligence Systems: GPA : 3.6 — *May 2026*
Relevant Coursework: Computer Vision, AI Systems, Statistics, Linear Algebra, Applied Mathematics, Machine Learning for AI, Data Visualization, Applied Deep Learning, Advance Machine Learning, Neural Networks for Computing, Human Computer Interaction.

SRM Institute of Science and Technology — Chennai, India
Bachelors in Computer Science; GPA: 8.88/10 — *June 2021*
Relevant Coursework: Artificial Intelligence, DBMS, Data Structures And Algorithms, Software Engineering, Operating Systems.

Experience

Software Engineer - AI/ML — Noida, India
United Health Group (Optum) — *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 - Indian Intellectual Property (2021)"** : 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

- **CORAS - Context-Based Intelligent Knowledge Retrieval System(GenAI):** 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):** 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**.
- **SCRADIT - Scrap Management Solution (Mobile App Dev):** Developed a full **scrap management app solution** covering the entire buying/selling pipeline, with an admin panel for step validation. Utilized **Flutter, Dart**, and **Azure Cloud** technologies.
- **KISSAN - Crop Recommendation Model/Chatbot (Deep Learning):** 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 HTML, CSS, DevOps, Docker, Git, SQL, NoSQL, Cosmos DB, MongoDB, Redis Storage.
- **Technologies:** Computer Vision, Natural Language Processing, Machine Learning, Deep Learning, IBM WatsonX AI, Open AI, Azure AI Studio, Azure Function App, Azure ContainerRegistry, RESTful API, API Integration, WebSocket, Docker, Flutter, Full Stack App Development, Git, IBM WTX, MSBI(SSIS, SSRS), UI/UX, Deployment, Power BI, Visual Studio Code.