Anany Sharma

Gainesville Florida
Linkedin: linkedin.com/in/ananyd36

Email: anany.sharma@ufl.edu
Github: github.com/ananyd36

Education

University Of Florida — Gainesville, Florida
Masters in Artificial Intelligence Systems — *Expected Graduation: May 2026*
Coursework: Computer Vision, AI Systems, Machine Learning for AI, Data Structures, Applied Deep Learning, Advance Neural Networks, Edge AI.

Experience

Graduate Research Assistant - EdgeAI — Gainesville, Florida
University of Florida — *March 2025 - Present*

- Developed and deployed **edge AI models** on smart **embedded systems** using the **AHA(AI Hardware Adventure) board with 5+ sensors** (e.g., oxymeter, motion, light, and weather sensors) to enable real-time, **data-driven decision-making** applications. Optimized and validated models on **Edge Impulse** for efficient edge deployment, ensuring performance on **IoT devices**. Led the creation of an AI curriculum for **200+ K-12 to undergraduate students**, integrating edge AI concepts to equip future innovators with hands-on experience in cutting-edge technologies.

Software Engineer - AI/Data Science — Noida, India
United Health Group (Optum) — *January 2022 - August 2024*

- Engineered and deployed **multi-modal Retrieval-Augmented Generation(RAG)** agents using **Azure AI Search** and **OpenAI** models, improving retrieval speed by 40% and adoption by 50%, with a **ReactJS** frontend and **Flask** backend for seamless AI-driven insights and scalability. Optimized **Azure Blob Storage**, reducing retrieval latency by 20%.
- Engineered **Optical Character Recognition & NLP** pipelines leveraging **Azure Document Intelligence**, automating claim receipt validation, reducing adjudication time and cost by **20%**, and enhancing accuracy in information extraction by **30%.**
- Developed **Power BI** dashboards, visualizing business KPIs in real-time, improving decision-making efficiency.
- Reporting and Analytics: Automated **1.5K+ financial reports** biweekly, leveraging **MS BI (SSRS, SSIS, Power BI)** to ensure business continuity streamlined reporting. Reduced report generation time by **20%**
- ETL: Designed **ETL** pipelines processing **10M+ claims/month**, leveraging **IBM WTX UNIX AIX**, optimizing data transmission speed via IBM messaging queues.

Machine Learning Intern — Remote, India
MFIT Technologies — *September 2021 - December 2021*

- Developed an **NLP-powered** financial data extraction system using **OCR (Tesseract)**, **Conditional Random Fields** models, and spatial modeling to automate transaction monitoring from bank statements, achieving **85%** field-extraction accuracy. .
- Designed a hybrid **Named Entity Recognition + layout**-aware extraction framework adaptable to **10+ document formats**.
- Engineered a dynamic **CRF-Spatial model** combining sequential patterns and geometric features (coordinates, **IOU**) for robust parsing of credit/debit statements across **4 major banks**.

Skills Summary

- **Languages and Frameworks:** Python(expert), C++(intermediate), Javascript(intermediate), Dart(intermediate), SQL(expert), NoSQL(intermediate), Django(intermediate), Flask(proficient), Fast API(proficient), ReactJS(proficient).
- **Technologies:** Azure, AWS, Pytorch, Open AI, Tensorflow, LangChain, LlamaIndex, LangGraph, Scikit-learn, Pinecone, CrewAI, Hugging Face, Supabase, Linux, Git, MSBI(SSIS, SSRS, Power BI).

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**, and **OpenAI Whisper**. Integrated multimodal capabilities to handle both text and audio data. Leveraged **Prometheus** and **Grafana** for monitoring.

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**. Achieved an average precision of **60%** on 'PPE kit' class, **85%** AP on 'mask' class and **80%** on 'No mask' class.