Deepanshu Joshi

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EDUCATION

B. Tech in Computer Science and Engineering   2021 - 2025

Amity University, Noida   CGPA: 8.17

TECHNICAL SKILLS

Machine Learning | Neural Networks | Retrieval-Augmented Generation (RAG) | Python | JavaScript | Java | C/C++ | ReactJS | Node.js | Next.js | Full-Stack Development (MERN Stack) | Socket Programming (TCP/IP) | Docker | SQL | Distributed Systems

EXPERIENCE

Software Engineering Intern | Plutos.One   May 2024 - July 2024

- Developed a **Natural Language Offer Recommendation System,** achieving **90%** accuracy and reducing the response time by **80%.**
- Performed data cleaning and transformation to improve indexing efficiency and ensure data quality.
- Implemented **Retrieval-Augmented Generation (RAG)** using **Chroma DB** for improved recommendation accuracy.
- Integrated the recommendation system into the company's chatbot, enabling users to discover personalized offers through natural language queries.
- Enhanced customer engagement and conversion rates by streamlining offer discovery via intelligent, context-aware search.

PROJECTS

Machine Learning | Beta-1: Personal PC Assistant

- Engineered a robust PC assistant leveraging advanced AI to automate and manage tasks such as file management, web browsing, code generation, and code review.
- Implemented multiple intelligent agents using LangChain's LangGraph framework to enhance task delegation and execution.
- Optimized the assistant for efficient, context-aware task handling, resulting in a streamlined user experience.

Web Dev| Folio: A Project Management Platform

- Developed **Folio**, a full-stack project management platform using the MERN stack and Next.js, empowering developers with version control, project management, and portfolio hosting capabilities.
- Enabled users to directly code and customize their portfolios within the platform, fostering a seamless development and showcase experience.
- Architected the backend using distributed system principles to ensure scalability, fault tolerance, and efficient data synchronization across services.

Deep Learning | Lung Cancer Detection

- Developed an ensemble CNN model for early-stage lung cancer detection using VGG16, GoogLeNet, and a custom CNN. Fine-tuned all models on the CT scan dataset to capture diverse feature representations.
- Applied data augmentation techniques to expand dataset variability and reduce overfitting during training. Integrated CBAM layers into each model to enhance spatial and channel attention mechanisms.
- Achieved **94% overall training accuracy** post-ensemble, with each individual model exceeding **90% accuracy**. This ensemble approach improved the prediction stability and diagnostic reliability.