Nancy Saini

📞 860-214-7048 ✉ saininancy128@gmail.com 🔗 linkedin.com/in/nancy-saini11 ⊙ github.com/

Education

Oriental Institute Of Science and Technology	2021 – 2025
B.Tech in Information Technology (CGPA: 7.8 / 10)	*Bhopal, India*
Servite Convent Sr. Sec School	2021
Higher Secondary (Percentage: 82 / 100)	*Bhopal, India*
Servite Convent Sr. Sec School	2019
Senior Secondary (Percentage: 86 / 100)	*Bhopal, India*

Projects

Real-Time Meeting Summarizer | *Python, WebSockets, OpenAI Whisper, LangChain, React.js, FastAPI, Vercel*
- Built a real-time meeting transcription and summarization system leveraging **OpenAI Whisper** for speech-to-text and **LangChain** for abstractive summarization.
- Implemented a **WebSocket-based FastAPI backend** for streaming transcripts with low-latency delivery to a React.js frontend.
- Applied **LLM-powered summarization pipelines** with action-item extraction, improving meeting productivity through context-aware insights.
- Deployed on **Vercel (frontend)** and **cloud backend API**, ensuring scalability and real-world usability of the GenAI application.

RAG-based Knowledge Assistant | *Python, LangChain, FAISS, Hugging Face Transformers, FastAPI, Streamlit*
- Developed a **Retrieval-Augmented Generation (RAG)** chatbot combining **Hugging Face Transformers** with **LangChain** to deliver grounded, domain-specific responses.
- Implemented document embedding and **vector search using FAISS**, optimizing semantic retrieval with advanced data structures and algorithms.
- Designed a modular **LLM + retriever pipeline** to ensure accurate, explainable outputs, improving comprehension in knowledge-intensive domains.
- Exposed APIs via **FastAPI** and deployed an interactive **Streamlit interface**, showcasing ownership in building scalable enterprise-ready AI solutions.

Customer Support LLM Fine-Tuning | *Python, Hugging Face Transformers, LoRA, PyTorch, Weights & Biases*
- Fine-tuned a **pre-trained Transformer model** using **LoRA (Low-Rank Adaptation)** on a curated **customer support dataset** to enhance automated query resolution.
- Preprocessed support tickets and FAQs into **prompt-response pairs**, improving model comprehension and contextual relevance for domain-specific tasks.
- Implemented an evaluation pipeline with **BLEU, ROUGE, and perplexity metrics** to quantify improvements in LLM performance compared to baseline models.

Technical Skills

Languages: Python, SQL
Databases: MySQL, AlloyDB
Machine Learning & AI: Deep Learning (DL), NLP, Large Language Models (LLMs), Generative AI (GenAI), **Retrieval-Augmented Generation (RAG)**, **Fine-Tuning LLMs**
Core Competencies: Data Structures & Algorithms (DSA), Problem Solving, Object-Oriented Programming (OOPs)
Frameworks & Libraries: PyTorch, Hugging Face Transformers, Scikit-learn, LangChain
Backend & APIs: Flask, RESTful APIs, FastAPI (Basics)
MLOps & Cloud: AWS (Basics), GCP (Basics)

Achievements & Extra-Curricular Activities

Problem Solving on LeetCode
- Solved over 400+ problems on GeeksforGeeks and 100+ problems on LeetCode, strengthening skills in Data Structures & Algorithms, problem-solving, and coding efficiency.

Member of Microsoft Club, Oriental College
- Actively participated in organizing and conducting AI-focused workshops and hackathons, strengthening teamwork, technical collaboration, and event management skills.