HASHYANTH NEDUMARAN

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OBJECTIVE

A recent graduate skilled in AI and Machine Learning, with expertise in Generative AI. Proficient in developing advanced language models. Seeking an opportunity to contribute my technical knowledge and eager to apply my skills in designing cutting-edge generative AI solutions that deliver real-world impact.

EDUCATION

Amrita Vishwa Vidyapeetham

Bachelor of Technology in Computer and Communication Engineering - 7.14 CGPA

Jun. 2020 - Sep. 2024

Coimbatore, Tamil Nadu

EXPERIENCE

Flex Sep 2024 – Present Chennai, Tamil Nadu

Data Analyst

• Leveraged unsupervised learning techniques to detect anomalies in sales invoice data and extracted keywords and themes from survey data to uncover critical insights. Designed and implemented global demand trend dashboards to support strategic decision-making. Developed IT policy chatbot and Financial inference summarizer utilizing large language models (LLMs), enabling auditors to efficiently interact with policy documents and financial statement data. Delivered actionable insights to drive informed business decisions.

PROJECTS

IT Policies Chatbot | Flask, RAG, Azure OpenAI

Dec 2024

- Built a Flask-based RAG chatbot to analyze 250+ IT policies and deliver actionable insights.
- Processed 1,000+ policy pages into paragraphs, boosting embedding accuracy by 30%.
- Used Azure OpenAI (Ada) embeddings and ChromaDB for semantic search with <1.5s response time.
- Engineered a dual RAG pipeline: one tuned for precise factual retrieval, and the other for generating adaptive suggestions—boosting user satisfaction and interpretability by 40% in internal testing.

Financial Inferences Summarizer | Flask, RAG, Azure OpenAI

Jan 2025

- Built a Flask-based RAG tool to analyze 500+ financial reports across 50+ companies for strategic decision-making.
- Parsed 3,000+ pages into paragraph-level text, improving embedding quality and context retention by 35%.
- Used Azure OpenAI (Ada v2) with ChromaDB for 95% top-k semantic retrieval and <1.2s latency.
- Designed dual RAG pipelines for factual financial queries and generative company recommendations, boosting decision accuracy by 45%.

Adaptive Traffic control using Deep Reinforcement Learning | Python, Deep Reinforcement Learning Mar 2024

- Designed a Deep Reinforcement Learning(DRL)-based traffic controller using Deep Q-Network(DQN) to dynamically optimize signal timing based on real-time traffic.
- Reduced average queue length by 20% and waiting time by 18% compared to fixed-time systems through a custom Q-function.
- Simulated 10,000+ traffic episodes using SUMO, analyzing queue length (avg. 179m), wait time (481.76s), and speed (12.24 km/h).
- Integrated Transit Vehicle Priority (TVP), improving emergency and public vehicle flow with minimal impact on regular traffic.
- Outperformed benchmark algorithms in diverse traffic densities, improving flow and reducing delays by 25–30%.
- Published and presented results at IEEE Pune Subsection Conference 2024, receiving commendation from academic reviewers.

Research Works

• Dhashyanth N Et al. Adaptive Traffic control using Deep Reinforcement Learning (Dec 2024) - Accepted (paper link)

TECHNICAL SKILLS

Programming Languages: Python, SQL, Javasrcipt, Java

Data Visualization Tools: Tableau, Power Bi

Databases: Relational Databases (MySQL, Snowflake), NoSQL Databases (MongoDB)

Cloud Platforms: AWS, Azure

Developer Tools: VS Code, Jupyter Notebooks, Git

Libraries: LlamaIndex, Langchain, Langgraph, HuggingFace, Chromadb, Open AI, Flask, Pandas, NumPy

CERTIFICATIONS

Event-Driven Agentic Document Workflows - (DeepLearning.ai) (certificate)
Hands-On Essentials: Data Warehousing Workshop Badge - Snowflake (certificate)
Generative AI with Large Language Models - Coursera (certificate)
Microsoft Power BI Data Analyst Professional Certificate - (Udemy) (certificate)
IBM Python for Data Science, AI and Development - (Coursera) (certificate)
Building Multimodal Search and RAG - (Deep Learning.AI) (certificate)
Data Science using Python - (Verzeo) (certificate)

LEADERSHIP

• Hospitality Team Head, Anokha Fest at Amrita Vishwa Vidyapeetham - Coordinated with the organizing team to plan and execute hospitality services, focusing on accommodation, food arrangements, and guest interactions. Successfully ensured smooth operations and enhanced guest experiences.