Urvi Mehta

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LinkedIn

Github

Github

Education

G H Raisoni College of Engineering and Management, Pune

2020 - 2024

B. Tech in Artificial Intelligence

9.11/10 CGPA

Courses: Object Oriented Programming, Integral Calculus, Linear Algebra & Statistics, Data Structures & Algorithms, ML, NLP

Work Experience

Zensar Technologies Ltd.

Oct 2024 - Present

Junior Associate Process Executive

Pune, India

- Developed and optimized high-quality content for advanced AI models, including generative prompts, video descriptions, image captioning, and summarizations for a **Fortune 500 semiconductor leader**, contributing to a 30% improvement in response coherence and relevance.
- Applied NLP techniques to improve the content quality of model responses across multiple categories and use cases; with an accuracy rate of 91%.
- Collaborated with cross-functional teams to enhance prompt engineering methods, leveraging advanced NLP concepts to develop content solutions that resulted in a 25% increase in workflow efficiency, supporting the client's evolving AI objectives.

AAHENT Consulting Software Solutions Pvt Ltd

Jan 2024 – August 2024

Data Science Intern

Pune, India

- Utilized research and analytical skills working with LLMs. Conducted **model evaluation and testing by clustering** open-source embedding models, identifying key performance areas and other potential parameters.
- Engineered high-quality prompts for conversational AI and content generation using **LangChain and LlamaIndex** within a Retrieval-Augmented Generation (RAG) pipeline.
- Fine-tuned LLMs to generate accurate and context-aware outputs, enhancing prompt performance.
- Managed data collection and preprocessing to ensure high-quality input for accurate response generation.
- Delivered podcasts in the domain of Generative AI and Data Science. (LinkedIn Event Landing Page)

Technical Skills

Languages & Frameworks: C++, Python - LangChain, LlamaIndex, HuggingFace, Pytorch, Tensorflow Developer Tools: VS Code, GitHub, Git, GCP

Soft Skills: Problem-Solving, Adaptability, Leadership, Research, Strong Communication, Critical Thinking

Projects

Self-supervised Learning with Generative Adversarial Network:

Source Code

- * This is a research project that includes an application of a Generative model in the field of Machine Learning.
- * Combined self-supervised learning with a GAN to address the scarcity of labeled data in tabular datasets.
- * Generated synthetic data and evaluated quality using various parameters while comparing the accuracy of predictions generated by synthetic data.
- * Tech: Python, Conditional tabular GAN, ensemble modeling

RAG as a Python Notemaking Companion

Source Code

- * Developed a Retrieval-Augmented Generation (RAG), providing an interactive and efficient note-making companion.
- * Dataset: 850-page e-book, 'Python Notes for Everyone'
- * Implemented sophisticated open-source embedding and generation models (LLM).
- * Designed prompts to accurately extract relevant information from a large vector database for note summarization.
- * Tech: Langchain, HuggingFace-quantized models, ChromaDB(vectorDB)

Research Publications & Awards

Instant Messenger Forensic System in International Conference ICCNT, IIT-Mandi (July, 2024)

Revolutionizing Sports Education with AI in ICCNT, IIT-Mandi (July, 2024)

Best Research Paper Award in Springer ICISML 2024 Conference (Jan, 2024)

Noteworthy open source contribution in HacktoberFest 2022. (4 PRs accepted) (Oct, 2022)