



Umang Tank

Jr. Software Engineer

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PROFESSIONAL EXPERIENCE

Jr Software Engineer, *Samyak Infotech Pvt. Ltd*

Aug 2023 – present

Software Engineer Trainee, *Samyak Infotech Pvt. Ltd*

Jan 2023 – Jul 2023

Roles and Responsibilities

- Analyzed large and complex datasets to uncover patterns, trends, and relationships, driving informed business decisions.
- Developed predictive models using algorithms such as logistic regression, decision trees, and neural networks to enhance business outcomes.
- Applied deep learning techniques, including neural networks, to tackle intricate data science challenges in NLP and CV domains.
- Developed a versatile NLP solution utilizing Retrieval-Augmented Generation (RAG) architecture to tackle a range of NLP problems.
- Utilized MLOps techniques for efficient project management and conducted ongoing research to stay abreast of the latest advancements in data science. Additionally, worked on multiple generative AI projects, leveraging cutting-edge models and methodologies.

PROJECTS

GenAI StoryBoard Generation

- The aim of the project is to generate storyboards for the movie script using a stable diffusion image generation model and ControlNet.
- Additionally, RAG (Retrieval Augmented Generation) has been implemented to generate better and more relevant prompts for the images.
- Various functionalities have been implemented, such as inpainting, image regeneration, and Character consistency.

Tech Stack: Python, Stable Diffusion, LLMs, Lang chain, AWS

Agent Selection using Machine Learning

- Worked on advanced machine learning model for predicting courier service requirements in real-time.
- By analyzing historical delivery data and customer demands, it optimizes resource allocation, minimizes delays, and ensures top-notch customer satisfaction for a leading logistics company and also automated the training of model.
- employed **MLOPS** techniques with DVC to ensure efficient data management and MLflow for comprehensive experiment tracking and model versioning.
- **Achieved 100% transition** from rule-based decision-making.

Tech Stack: Python, Machine Learning (Classifiers), DVC, MLflow and Rest API

PDF Chatbot

- Created a PDF Chatbot by integrating an LLM and utilized the Langchain framework for advanced language models with RAG architecture
- Incorporated Chromadb as a storage solution to efficiently manage data for seamless interactions with PDFs.

Tech Stack: Python, LLMs, Langchain, chromaDB

SKILLS

Python — Rest API • Fast API • Python libraries | **Machine Learning & Deep learning** — Regressors • Classifiers • Neural networks • Optimizers • Loss functions | **Natural language processing** — LLMs • Langchain • Ollama • RAG (Retrieval augmented generation) • Vector database | **Version control** — Git • Github | **Deployments and tracking** — Data version control (DVC) • AWS • MLflow | **Image models** — Stable diffusions • ControlNet

EDUCATION

Bechelor of Engineering, *L.D. College of Engineering* 2019 – 2023 | Ahmedabad
CGPA: 8.04 / 10