



Name: Jugal Kamal Gurnani
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Summary:

AI Developer and data scientist with hands-on experience in developing intelligent chatbots using advanced RAG architecture with Vector Embeddings, LangChain, and OpenAI. Successfully designed and implemented a sophisticated chatbot capable of processing and understanding PDF inputs during an internship. Proficient in integrating AI models with document processing pipelines to enhance user interaction and information retrieval. Proficient in AWS cloud including AWS Sagemaker and AWS Bedrock

Shows problem-solving skills, innovative thinking, and a commitment to advancing AI-driven solutions for increased automation and productivity gains through AI.

Additionally, experienced in predictive maintenance using LSTM models to reduce machine downtime and summarization and sentiment analysis of call transcripts using NLP technique.

Volunteered at DY Patil Stadium for TATA IPL 2022 and FIFA U-17 Women's World Cup 2022, getting key skills in event-management, time-management, and crowd handling, while working collaboratively with diverse groups

Technical Skills
<ul style="list-style-type: none">• Programming Languages: Python, C++, SQL and R• AI and Machine Learning: Natural Language Processing (NLP), Generative AI, Machine Learning (ML) models, Data Science• Tools and Frameworks: TensorFlow, PyTorch, LangChain, Pinecone, Pandas, Flask, Django, Fast API
Professional Experience
<ul style="list-style-type: none">• Data Scientist - Beyond Key Systems Pvt. Ltd. (Oct 2024 – Mar 2025):<ul style="list-style-type: none">- Predictive maintenance: This solution was built keeping Manufacturing industries in mind. In manufacturing industries, machine downtime due to degradation of components is a big challenge. The aim of this solution was to reduce downtime by predicting the degradation of the component early enough to minimize downtime. This was implemented by training LSTM model on previous data of degradation captured by sensors in these machines.- Summarization and Sentiment analysis of a call transcript: From a call transcript, extract the topics that were discussed in the meeting using Topic Mapping. The next step in this solution was to summarize every speaker’s view on every topic along with their sentiments using Natural Language Processing (NLP) techniques of Part of Speech (POS) tagging.• AI Developer - Beyond Key Systems Pvt. Ltd. (Feb 2024 –Sept 2024):<ul style="list-style-type: none">- Loan Processing Agent: Developed a Multi-Agent application consisting of 3 AI agents for 3 processes communicating through gRPC.- Legal 365: Deployed an application developed around lawsuit data present in our database. This project was built using React for frontend. The backend APIs were developed using FastAPI and the react build was deployed using IIS server.- Credit Risk analysis: Developed an application that analyzes risk in crediting a loan. This project leverages Large Language Model’s capabilities of processing text data and summarization. This project aims to automate the assessment of borrower’s financial data, providing positive indicators and risk factors in crediting a loan. This solution enhances efficiency and accuracy in credit risk evaluation for financial institutions.- Insurance Claim and Fraud Detection: This project automates the validation of insurance claims by using a Large Language Model (LLM) to compare claim forms with policy terms, enhancing efficiency, accuracy, and fraud detection in the claims process. The solution helps the insurance company, policyholders, and claims department employees by streamlining operations and reducing manual workload.- HR Policy Chatbot: Created a custom HR policy chatbot using Retrieval-Augmented Generation (RAG) to provide employees with instant access to HR policy information, leveraging the Beyond Key policy book and Pinecone for data management.

Academic Projects:

- **Blog website:** Developed a dynamic and responsive blog website using the Django framework, showcasing proficiency in full-stack web development. (Tech Stack: Python (Django framework), HTML, CSS)
- **Yoga Posture Detection:** Detects yoga postures and provides feedback on accuracy and best times. (Tech Stack: TensorFlow, Pandas, Python)
- **Music Genre Classification:** Predicts the genre of input music files (.wav). (Tech Stack: Python, Keras, Librosa, Flask)
- **Event Management Platform:** A platform for better coordination between department heads and employees during events, using Python
- **BookWorm:** An online community for readers to share views on books and read summaries provided by other users.

Academic Background:

Bachelor of Technology (B.Tech.) – Ramarao Adik Institute of Technology, -RAIT, DY Patil, Mumbai
Final Semester GPA: 10.0
Overall GPA: 8.21

Certifications:

- Generative AI for Business Leaders
- Prompt Engineering: How to talk to the AIs
- HBS Online Entrepreneurship Essentials
- HBS Online Sustainable Business Strategy
- HBS Online Business Analytics
- Volunteer at DY Patil Stadium for TATA IPL 2022
- Volunteer for FIFA U-17 Women's World Cup 2022

Soft Skills:

- Problem Solving
- Communication
- Team collaboration and adaptability
- Interpersonal Skills

Volunteering Experience:

- Team Manager for the Reliance team in DY Patil T20 tournament (Feb 2023)
- Accreditation volunteer for FIFA in U-17 Women's World Cup (Oct 2022)
- Volunteer for DY Patil stadium in IPL (May 2022)

Additional Experience:

- Preferred Programming Language: Python
- Other known Languages and Framework: C++, HTML, CSS
- Hobbies: Playing Cricket, Playing Guitar