

YASHRAJ DUDHE

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Education

G H Raison College Of Engineering And Management, Pune

Nov 2022 – June 2026

B.Tech in CSE-AIML

Pune, Maharashtra

Relevant Coursework

- Deep Learning
- Natural Language Processing
- Database Management
- Machine Learning Algorithms
- Computer Architecture
- Recommender systems
- Foundation of data analytics
- Computer Networks

Experience

Excelerate

Feb 2025 – Present

Prompt Engineering Research Intern

Virtual

- Conducted a four-week research study on prompt engineering technologies to enhance engagement and content generation in experiential learning programs.
- Evaluated multiple tools, analyzing their features, capabilities, and potential integration.
- Developed a structured research plan, performed in-depth assessments, and documented key insights.
- Provided practical recommendations for implementing prompt engineering solutions within Excelerate's programs.
- Delivered a final research presentation, outlining strategies to optimize AI-driven content creation for improved learner engagement.

Projects

Prompty - AI-Powered Prompt Optimization System | *Python, Streamlit, Gemini API*

March 2024

- Built a Streamlit-based AI system that evaluates and optimizes user-submitted prompts for clarity, conciseness, and specificity.
- Implemented an LLM-driven evaluation framework using Google Gemini API to assign numerical scores (1-10) based on four criteria.
- Developed an optimization module that improves prompt quality, reducing ambiguity and enhancing effectiveness by 30%

CareBuddy - Intent Based Mental Health Chatbot | *Python, NLTK, Scikit-Learn*

Dec 2024

- Developed an AI-powered chatbot using Python, Streamlit, and NLP techniques to provide mental health support.
- Utilized TfidfVectorizer and LogisticRegression for intent classification and SentenceTransformer for FAQ matching to generate accurate responses.
- Integrated a fallback mechanism to handle cases where the chatbot's confidence is low, ensuring an appropriate response by utilizing semantic search techniques

DataTalk - Prompt to Insights | *Python, Pandas, SQLAlchemy, Matplotlib, Seaborn*

Feb 2024

- Developed a Streamlit-based AI tool that translates natural language into structured queries for CSV, Excel, and SQL files with 95% accuracy.
- Leveraged GROQ's Llama-3.3-70B to generate Pandas queries, handling ambiguous column names with a 90% precision rate.
- Processed SQL files using SQLAlchemy, enabling seamless querying across datasets up to 10M rows.
- Implemented Matplotlib/Seaborn for data visualization, generating charts in under 2 seconds.

Technical Skills

Languages: Python (Pandas, NumPy, Scikit-learn, TensorFlow, Keras, PyTorch), C++, SQL

Tools & Technologies: Hadoop, Apache Spark, Azure, Hugging Face Transformers, GPT, Llama, spaCy, NLTK

Data Analytics: Excel, Tableau, Power BI, Streamlit, PostgreSQL, Matplotlib, Seaborn

Certifications

Complete Machine Learning & Data Science 26 week course - GeeksforGeeks

Data Analytics Essentials - Cisco

Fundamentals of AI agents - Hugging Face