# MEENAL PATIDAR

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**♀** Indore, Madhya Pradesh

in LinkedIn

**G** Github

#### **EDUCATION**

# B. Tech. Computer Science | Indian Institute of Technology, Mandi

Aug 2020 - Present(till June 2024)

- Relevant Courses DSA, Linear Algebra, Information And Database Systems, Mathematical Foundation of Computer Science, Data Science- 1,2,3 (Python, Probability & Machine Learning), Computer Organisation, Map Reduce & Big Data, Communication and Distributed Processes, Large Applications Practicum, Systems Practicum, Applied Mathematical Programming, Performance Analysis of Computer Networks
- CGPA: 7.57

• CBSE(Class XII) Percentage: 91.4

• CBSE(Class X) CGPA: 10

#### **WORK EXPERIENCE**

#### **Software Developer Intern**

#### **MAQ Software**

June '23 - Aug '23

- Developed a context-based Large Language Model using Llama 2 as base model for training on general data, implemented vector embedding for semantic search and fine-tuning (using LoRA and QLoRA) over customised data to get relevant results and insights. Oversaw its deployment over company's cloud.
- Further, evaluated the model using various techniques and parameters such as ROUGE, BLEU, etc. and engineered prompts for refining the LLM and improving accuracy.
- Worked with Power BI (Desktop and Service) to generate, process and analyse organisation as well as client data. Created visualizations and dashboards for better insights and analysis.
- Tech Stack: Python, LangChain, Azure DevOps, NodeJS

## **PROJECTS**

## Rapid Hive [Github link] (React.js, Node.js, Python, Flask)

- A File Transfer System to streamline workflow by establishing a fast intranet. Files up to 1 GB can be shared by people connected over the same network by creating or joining rooms.
- Utilizes sockets to enable real-time communication and threading to parallelize send/receive operations.

# Cross Language Information Retrieval [Github link] (NLP, Text Pre-processing, Python)

- A system which, given a query in German, is capable of searching text documents written in English and displaying the results in German.
- Implemented machine translation, information retrieval using a vector space model, and then assessed the performance of the system using IR evaluation techniques.

# Audio-Visual N-Back Task [Github link] (React.js, HTML, CSS, Tailwind)

• A web app that offers a series of audio-visual n-back tasks for the improvement and assessment of the working memory. Comprises of 3 levels, two visual and one auditory. Report is generated at the end for analysis.

# Travello [Github link] (Django, PostgreSQL, HTML, CSS, JavaScript)

• A web app that helps you plan your travel/vacations by recommending places to visit under your budget.

#### **TECHNICAL SKILLS**

- Languages: [C++, Python, SQL, HTML-CSS](Most experience), [JavaScript, C, C#](Beginner Level experience)
- Frameworks: Django, PyTorch, LangChain, Scikit-Learn, LaTeX
- Relevant Libraries: Pandas, Keras, TensorFlow, Numpy, Seaborn, SciPy, Matplotlib, Streamlit
- CS Fundamentals: OOPS, DBMS, Operating System, Computer Networks

#### **ACHIEVEMENTS**

- Won 1st Prize in Algorithms Contest organized by ACM-W (Women in Computing) IIT Mandi.
- Among Top 200 in WE Talentsprint, Cohort 3
- Among **Top 15** in Frosthack 2021 FrostHack is a national level Hackathon organized by IIT Mandi. There were a total of 300+ different colleges participating and our team came under Top 15 among all.
- Got Special Mention in Corinthian, a Cryptography Contest by Yantrik Club, IIT Mandi.

#### **POSITIONS OF RESPONSIBILITY**

- Core Team Member, Xpecto- The Annual Technical Fest of IIT Mandi.
- PMC- Core Team Member of The Photography And Movie Making Club, IIT Mandi
- GCS (General Counselling Service) and NSS Volunteer, IIT Mandi