



Rohan Kumar Thawait

Roll No.:2420289

M.Tech - Computational and Data Science

B.Tech in Computer Science and Engineering

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Github | GFG | Leetcode

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
M.Tech.	National Institute Of Technology Karnataka, Surathkal	8.08 (Current)	2024-Present
B.Tech.	SAGE University, Indore	8.12	2024
Senior Secondary	CBSE Board	83.0%	2019
Secondary	CBSE Board	9.2	2017

PROJECTS

Resume Screening Assistant: GenAI x Backend Engineering

- Built a system that parses unstructured resumes and matches them to job descriptions using LLMs.
- Used OpenAI GPT-4 API and Hugging Face models to extract and rank skills from PDF and DOCX resumes.
- Backend built using FastAPI with structured outputs and REST interface. Stored embeddings and match scores for quick querying.
- Optimized the model through hyperparameter tuning, improving classification performance.
- Deployable as a microservice.

LLM-Powered Q&A Bot for PDFs(RAG System)

- Built a document-querying tool where users upload long legal/property documents and ask questions.
- Used LangChain, FAISS, and OpenAI to generate answers based on extracted chunks.
- Converted PDFs to chunks, created embedding store, used similarity search before prompting LLM.

Micro-Doppler Based Image Classification

- Developed a binary classification model to distinguish between drone and bird micro-Doppler signatures captured from radar.
- Explored various deep learning architectures, including CNNs, ResNet50, and Vision Transformers.
- Improved model performance by optimizing data preprocessing and hyperparameter tuning.

TECHNICAL SKILLS

- **Languages:** Python, SQL
- **Backend & Engineering:** FastAPI, REST APIs, GitHub Actions, MySQL, Docker
- **AI/ML & NLP:** Hugging Face Transformers, OpenAI API, Prompt Engineering, LangChain, Text Summarization, Classification, Named Entity Recognition
- **LLM Tools & GenAI:** Embedding-based retrieval, Few-shot prompting, Zero-shot classification, Vector DBs
- **DevOps:** Render, GitHub Actions, Docker
- **Version Control & Tools:** Git, GitHub, VS Code, Google Colab
- **ML/DL Libraries:** TensorFlow, Keras, Scikit-learn

KEY COURSES TAKEN

- **Computer Science:** Operating Systems, Database Management Systems, Data Structures and Algorithms, Computer Networks, Machine Learning
- **Mathematics & Statistics:** Linear Algebra, Probability and Statistics, Bayesian Decision Theory
- **Software Development:** Object-Oriented Programming, Software Engineering

ACHIEVEMENTS

- **Certified LLM Agent Builder — Hugging Face GAIA Benchmark Pass**
- **Solved 500+ problems on LeetCode and GFG, with 100+ days consistency**