

Abishek Hari Hara Prasad

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Master's Student in informatik at the university of Freiburg, I'm passionate about coding and constantly driven by the challenge of solving problems efficiently. Seeking opportunities to grow in the field of Generative AI and Large Language Model (LLM) engineering, with interests in AI agents, retrieval-augmented generation (RAG), and scalable intelligent applications.

TECHNICAL SKILLS

Languages: C, Python, JavaScript, HTML, CSS, SQL.

AI/ML & GenAI: PyTorch, Hugging face, LoRA, Rag Systems, Lang Chain, OpenAI API, Prompt Engineering, Claude Code.

Backend & Frameworks: Next.JS, Flask, React.JS, Express.JS, Tailwind CSS, NumPy, FastAPI.

Tools: GitHub, Vercel, VS code, Docker.

Operating Systems: Windows, Linux

Databases: MongoDB, ChromaDB(vector)

PROJECTS

Rag API with hybrid Retrieval

NextJs, FastAPI, ChromaDB, HuggingFace, langchain, Openrouter.

- Built Fast API based RAG system with chromaDB(vector) + BM25 hybrid retrieval and added cross encoder reranking to improve result relevance.
- Implemented PDF ingestion and grounded question answering using LangChain and Hugging face models, reducing hallucinations and improving retrieval quality.

LLM fine tuning with LoRA and DPO

Pytorch, HuggingFace, PEFT, TRL.

- Fine-tuned LLM using QLoRA for structured JSON extraction and tool-calling, Applied DPO for preference alignment, improving output reliability.
- Developed an evaluation pipeline using exact-match accuracy and JSON schema validation metrics, improving output reliability and reducing malformed JSON generations compared to the base model.

Todo Management Application

Next.js, MongoDB, NextAuth.js

- Built a full stack task management application with secure user authentication and authorization. Implemented CRUD operations for creating, updating, deleting, and managing personal tasks.
- Integrated MongoDB for persistent data storage and designed RESTful APIs using Next.js. Ensured user specific data access and developed a responsive, intuitive interface for seamless task management.

EDUCATION

M.Sc. informatik - specialization in Artificial Intelligence

Oct 2024 - Present

University of Freiburg

Related coursework: Machine learning, Artificial Intelligence, Foundations of Deep learning, AutoML.

B.Tech in Information Technology

Sept 2020 - May 2024

SRM Institute of Science and Technology

GPA: 1.6

CERTIFICATES

Career Essentials in Software Development | Microsoft - LinkedIn

Meta Frontend Developer | Coursera

AI Engineer core track | Udemy

VOLUNTEERING

Student Event Coordinator | *SRM Institute of Science and Technology*

- successfully managed campus events as a volunteer for the campus life club at my college, demonstrating my ability to work effectively in a team and plan events.
- I contributed to creating a vibrant campus community by collaborating well with others.

LANGUAGES

English	Professional Working Proficiency
German	Elementary Proficiency