Rishi D V

Objective

Final-year B.Tech Computer Science student passionate about Machine Learning, Large Language Models (LLMs), and AI research. Eager to contribute to cutting-edge ML systems with a focus on reasoning, retrieval, and alignment. Looking for roles or internships that involve model development, fine-tuning, and applied AI research.

Education

B.Tech in Computer Science and Engineering

PES University, Bengaluru

Expected: May 2026 | CGPA: 8.82/10

Relevant Coursework:

- Deep Learning
- Machine Learning
- Natural Language Processing
- Reinforcement Learning
- Distributed Systems
- Linear Algebra, Probability & Stats

Skills

• Languages: Python, C++, SQL

- Frameworks: PyTorch, TensorFlow, HuggingFace Transformers, scikit-learn
- Tools: Weights & Biases, LangChain, Docker, Git
- Concepts: LLM Fine-tuning, Chain-of-Thought, RAG, Prompt Engineering, RLHF
- Other: Linux, Bash, VSCode, OpenAl API, REST APIs

Projects

Finetuning LLaMA on Code & Math (Research-Oriented)

Jan 2025 – Apr 2025

- Fine-tuned CodeLLaMA-7B on a curated subset of Codeforces and AoPS problems using LoRA.
- Implemented self-consistency decoding to boost performance on mathematical reasoning tasks.
- Achieved a 24% improvement in accuracy on the GSM8k benchmark (few-shot setting).

Building a RAG-Powered Chatbot for Technical Support

Oct 2024 - Dec 2024

- Built a domain-specific chatbot using LangChain + ChromaDB + OpenAI embeddings.
- Integrated a PDF ingestion pipeline and vector store-backed memory for persistent context.
- Used streamlit to deploy a minimal interactive frontend for demo purposes.

Multi-Agent LLM Simulation for Problem Solving

Jul 2024 - Aug 2024

• Designed a simulation where multiple LLM agents (planner, executor, verifier) collaboratively solve math word problems.

- Used OpenAI's function-calling API to coordinate agent interactions.
- Evaluated accuracy using a custom prompt-based rubric.

Emotion Detection from Speech using Deep Learning

Apr 2024 - May 2024

- Trained a CNN-BiLSTM model on the RAVDESS dataset to classify emotions from speech spectrograms.
- Achieved 82.5% test accuracy using mel-spectrogram augmentation and ensemble voting.

Internship

AI/ML Intern – NexMind.ai (Remote)

May 2024 – *Jul* 2024

- Worked on few-shot prompt optimization for product description generation using GPT-3.5-turbo.
- Benchmarked zero-shot vs few-shot performance across categories.
- Created automated evaluation scripts using BLEU and ROUGE.

Achievements

- Top 2% in the **Hugging Face LLM Leaderboard** Open Category (student track)
- Secured Global Rank 118 in Kaggle Playground Series NLP challenge
- Published a short paper: "Using Chain-of-Thought to Solve Arithmetic Word Problems" in MLIndia student journal

Positions of Responsibility

- Lead, ML & NLP Club Organized LLM hackathons and paper reading sessions
- Teaching Assistant, Deep Learning Assisted in labs and assignments for junior batch

Certifications

- Deep Learning Specialization Andrew Ng (Coursera)
- Hugging Face Transformers Bootcamp (2024 Cohort)
- LangChain for LLM Application Development Udemy