

# Meeturi Ajay Kumar

☎ +91 9395555272 — ✉ meeturijaykumar.23@gmail.com — in meeturi-ajay-kumar — 🌐 Meeturi Ajay Kumar

## About Me

Driven **AI Engineer** with a strong foundation in computer science and expertise in **NLP, and ML**. I enjoy working on **LLMs, generative models**, and AI-driven applications. Currently exploring **Agentic AI** and advancing my skills in **Gen AI** to expand my skill set and build more advanced AI solutions. Confident in my ability to learn quickly and contribute to **scalable, high-performance** AI systems. Eager to work on cutting-edge AI technologies enhancing human-computer interaction.

## Skills

**Languages:** Python, Java.

**Framework/Lib:** LLM, PhiData, Langraph, Spacy, NLTK, Gensim, Transformers, LangChain, Hugging Face, TensorFlow.

**Tools / Platforms:** Docker, Ollama, OpenAI, Groq, GitHub, VS Code, Jupyter Notebook, Google Colab, PyCharm, IntelliJ IDEA.

**Technologies:** Gen AI, Agentic AI, RAG, ML, NLP, Text Preprocessing, Embeddings, Vector Databases, Model Deployment.

**Databases:** MySQL, Firebase, FAISS, ChromaDB.

**Soft Skills:** Team Collaboration, Time Management, Consistent, Continuous Learning.

## Experience

**Research Intern, Multicoreware Inc.**

**June 2023 - June 2024**

- Collaborated with a talented **team of researchers** to develop **optimized machine learning models** for real-world applications.
- Contributed to developing an age group classification model using **heart rate** and **breath rate data**, applying algorithms to achieve upto **87% accuracy** through **feature selection, hyperparameter tuning**.
- I led the efforts around **hyperparameter tuning and cross-validation**, ensuring that the model was not only accurate but also scalable and robust enough for potential real-world deployment.
- Contributed in developing and optimizing a deep learning-based **air-drawn number recognition system** for touchless interaction in automotive systems, utilizing **TensorFlow, CNNs**, and achieved **80% accuracy** in digit detection by improving preprocessing and **feature engineering techniques**.

## Education

**Kalasalingam Academy of Research and Education, Tamil Nadu**

Bachelor's of Technology in Computer Science & Engineering

CGPA: 7.70/10.0

**Aug 2021 – May 2025**

## Projects

**ChatSphere** 🌐

**Python, LLM, mistral-saba-24b, LangChain, Groq API, Streamlit**

- Built an **AI-powered Q&A chatbot** using Streamlit, **LangChain**, and **Groq API**, enabling **conversational history retention** across multiple sessions with **unique session codes** for seamless retrieval.
- Designed a dynamic UI with a sidebar, allowing users to navigate **past and new chats** effortlessly, while integrating **mistral-saba-24b** for accurate real-time responses.

**RAGAI** 🌐

**Python, OpenAI API, text-embedding-3-large, FAISS, LangChain.**

- Built an AI-powered **RAG-based** application using **OpenAI's GPT-4o, LangChain, and FAISS**, where **web-scraped** content is converted into documents, embedded using **text-embedding-3-large**, and stored for efficient retrieval.
- Integrated **FAISS** for vector search and **OpenAI API** for response generation, enabling fast and contextually relevant answers from the scraped knowledge base.

**FinAgent** 🌐

**Python, Groq API, llama-3.3-70b-specdec, DuckDuckGo, PhiData API**

- Developed a **Multi-Agent System** using **Groq's llama-3.3-70b-specdec, YFinanceTools, DuckDuckGo, and Phi Data API**, enabling real-time stock data retrieval and web-based financial insights.
- Designed a multi-agent system with a **Phi Playground interface**, where the Finance Agent provides **structured financial data** in tables, and the **Web Search Agent** fetches market trends with cited sources.

## Achievements

- **Finalist (Top 5)** among 50+ teams - 35 hrs Hackathon alongside **industrial developers, Mathademia @ T-Hub, Hyd.**
- **5th place (75+ teams)** - 35 hrs **Smart Hacks National Level Hackathon @ Anurag University, Hyd.**
- **1st Runner-up (30+ teams)** - Software Freedom Festival **Model crafting** episode @ KARE, TN.