Vaibhav Jain

vbvjain2004@gmail.com — 8527196192 — LinkedIn — GitHub — TechGig

Education

KIIT University
Pursuing B.Tech in Computer Science and System Engineering. CGPA: 8.49
Jaypee Public School
Completed 10+2.

Technical Skills

Programming Languages: Python, C, Java, Flutter
Python Libraries: Hugging Face, TensorFlow, Scikit-learn, Pandas, Selenium, Requests, PyQT5/6, Tkinter, Matplotlib.
Database: MySQL

Training

Intel® Unnati Industrial Training – AI Model Deployment and Optimization (2024) (Certificate Link)
- Gained hands-on experience in deploying and optimizing AI models using **Intel® OpenVINO™** and **Hugging Face**.
- Applied advanced AI techniques to real-world challenges, including building a **Custom AI Kitchen for India**.
- Focused on model fine-tuning, deployment efficiency, and real-time application optimization.
- Guided by **Prof. Navendu Kar** with support from the Intel team.

Research Experience

Mathematical Problem Solving using LLM Reasoning and Genetic Algorithm (Results)
- Conducted in-depth research on enhancing the performance of Large Language Models (LLMs) using Genetic Algorithms for mathematical reasoning tasks on the MATH-500 dataset.
- Achieved **80.6% accuracy** with GA-enhanced Qwen2.5-14B, surpassing even the Qwen2.5-72B base model (79.4%).
- Demonstrated improvements at smaller scales, with Qwen2.5-1.5B (GA-enhanced) reaching **53.2% accuracy**.
- Achieved **62% accuracy** on Level 5 problems, validating strong generalization and problem-solving capabilities.

Projects

Financial Data Assistant using Gemini RAG (GitHub)
- Built a finance Q&A system using **Gemini 1.5 Flash** with **RAG approach** on Excel-based receipts and payments data.
- Summarized structured tables into natural language and generated semantic embeddings for similarity-based retrieval.
- Enabled accurate, context-aware insights like monthly trends, revenue thresholds, and business-specific analysis.

AI.Rassoi App (App Link)
- Designed and developed an AI-powered nutrition assistant that generates personalized daily diet plans using the Gemini API.
- Integrated advanced features like a calorie tracker, AI-based recipe recommendations, and performance analytics.
- Used Flutter and Dart for front-end development, with SQL for backend data storage, ensuring a seamless user experience.

Hate Speech Recognition using ANN (GitHub)
- Built a deep learning-based hate speech detection model using an Artificial Neural Network (ANN).
- Implemented data preprocessing techniques such as tokenization, stemming, and word embeddings to improve accuracy.
- Achieved 94% accuracy by incorporating early stopping mechanisms and tuning hyperparameters for efficiency.