Rahul Gupta

rahul.gupta312002@gmail.com | +91 8777050445 | linkedin.com/in/rahulgupta202/ | github.com/rahulg202

Education

Vellore Institute of Technology, B.Tech in Computer Science and Engineering — Sept 2021 – July 2025

- GPA: 7.76
- **Coursework:** Computer Networks, Data Structures and Algorithms, Database Systems, Operating Systems

Adamas International School, High School — March 2019 – May 2021

- ISC: 85.3%
- ICSE: 89.8%

Skills

Languages: Java, Python, C, C++, SQL, HTML, CSS, JavaScript
Library & Framework: TensorFlow, Scikit-learn, PyTorch, NumPy, Panda, OpenCV, NLTK, FAISS, LangChain
Database: MYSQL, MongoDB, Vector Database
Data Visualization: Matplotlib, Seaborn
Machine Learning Techniques: Supervised Learning, Unsupervised Learning, Artificial Neural Networks (ANN), Convolutional Neural Networks (CNN), Support Vector Machines (SVM), Recommender Systems, Natural Language Processing (NLP), Deep Learning, Large Language Models (LLMs)
Certifications: Specialization in Machine Learning, Specialization in Maths for Data Science & Machine Learning, AWS

Projects

Water Quality Analysis & Prediction using Intel oneAPI | github/Intel-oneAPI

- Implemented using oneAPI Data Analytics Library and traditional Python libraries.
- The project involved exploring a large-scale water quality dataset, conducting thorough data cleaning, data analysis, and implementing a machine learning model for predicting water quality.

AGROBOT - Plant Disease Detection | github.com/rahulg202/Agribot

- A machine learning model to accurately identify plant leaves affected by diseases or pests from images.
- The model evaluation was done using a test dataset, obtaining 96.3% accuracy. Deployment done on Jetson.

Retrieval-Augmented Generation | github.com/rahulg202/RAG

- The backend implementation of a document retrieval system designed to generate contextual information for LLMs to use during inference.
- The project involves storing documents in a database and retrieving them based on similarity search.

Experience

Machine Learning Engineer, Astute AI – Vellore, India — April 2024 – July 2025

- Led a cross-functional team and developed chatbot systems using LLMs like LLama and Mistral, enhancing customer interaction.
- Optimized vector embeddings to improve response accuracy, reducing chatbot latency by 20%.
- Built a Retrieval-Augmented Generation system, leading to boost in response relevance and knowledge retrieval.

Finance Head, IEEE RAS – Vellore, India — March 2023 – March 2024

- Managed the Chapter's accounts and secured sponsors for events, leading to a 40% increase in event funding, demonstrating strong skills in cash management and communication.
- Mentored and led a team of 10, leveraging teamwork and cross-department collaborations to successfully orchestrate events, ensuring operational efficiency and demonstrating leadership and teamwork.

Achievements

- Top 10 National Winner in OneAPI AI Hackathon conducted by Intel.
- 1st Runner Up in EC Innovative Challenge: Safety and Decision-Making in Autonomous Vehicles.
- Achieved 1st place in the highly competitive Innoverse Hackathon hosted by VIT Vellore.
- First Runner Up in AGRITHON, an agriculture hackathon conducted by VIT, NVIDIA, IIT Hyderabad.