Gaurav Chauhan

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LinkedIn | GitHub | HackerRank | LeetCode | CodeChef

Education

Bachelor's in Technology **2021–2025**
Mahatma Jyotiba Phule Rohilkhand University, Bareilly
Computer Science and Information Technology —— CGPA - 7.77

Class XII (PCMCs) **2018–2020**
ST. Francis School Ramnagar, Varanasi

Experience

Python Developer Intern, Abym Technology *July 2025 – Present*

- Developed **RAG-based AI applications** using **Python**, **LangChain**, and **LLMs** for context-aware conversations.
- Implemented **RAG pipelines** using embeddings and **vector databases** for semantic search and dynamic context retrieval.
- Managed **JSON/SQL-based data storage** to enhance chatbot context handling and workflow scalability.

Machine Learning Research Intern, IIT BHU *June 2024 – July 2024*

- Researched and implemented emerging **ML algorithms** in healthcare and UAV applications.
- Analyzed research papers, derived insights, and transformed findings into working models.
- Prepared technical documentation and presentations to summarize research results.

Projects

Medical Assistance Chatbot — GitHub **[RAG, LangChain, Gemini, HuggingFace, AI Agents]**

- Developed a **Conversational AI chatbot** for symptom triage using **Retrieval-Augmented Generation** and **Conversational Query Reformulation (CQR)**.
- Integrated **AI Agents** for appointment scheduling, personalized health recommendations, and memory management.
- Leveraged **Gemini LLM** with domain-specific prompts to enhance medical response precision and relevance.

SQL Database Chatbot — GitHub **[Python, MySQL, LangChain, LLM, Data Visualization]**

- Built an **AI-powered assistant** that interprets natural language to generate and execute SQL queries using **LLMs**.
- Enabled real-time data retrieval and **automatic chart generation** for analytics and decision-making dashboards.
- Implemented speech-to-text and text-to-speech for multimodal user interaction.

Solar Panel Fault Detection — GitHub **[TensorFlow, CNN, Transfer Learning, VGG16]**

- Designed and trained a **deep learning model** using **transfer learning (VGG16)** for defect detection in solar panels via aerial imagery.
- Optimized model through **data augmentation**, **early stopping**, and fine-tuning, achieving 85.9% validation accuracy.
- Applied **confusion matrix, precision, recall, and F1-score** for model performance evaluation.

QR-Based Smart Attendance System — GitHub **[JS, Flask, Python, QR Code, GPS]**

- Developed a location-verified **QR attendance system** using **Flask**, **GPS APIs**, and **real-time database logging**.
- Automated attendance tracking and reporting, improving workflow efficiency by over 25%.

Certifications

- Data Science Using Python – SWAYAM
- Oracle Cloud Infrastructure (OCI) AI Foundations
- SQL (Intermediate) – HackerRank
- Training Programme on Generative AI
- Data Analytics Virtual Internship – Deloitte
- Problem Solving – HackerRank

Technical Skills

- **Language:** Python, C++, JavaScript
- **Data Tools:** MySQL, MongoDB, AWS, PowerBI, Excel
- **Library:** ReactJs, Flask, NumPy, Pandas, Scikit-learn, LangChain, HuggingFace
- **Concepts:** OOP, Data Structure, Database, SDLC, Supervised, Unsupervised Learning, RAG, GenAi, Prompting
- **Soft Skills:** Problem Solving, Presentation, Communication, Technical Writing