

# Rohan Das

## Machine Learning Engineer

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### Professional Summary

Machine Learning Engineer with hands-on experience in building AI-powered applications, real-time forecasting systems, and large language model (LLM) integrations. Proven ability to deploy ML pipelines, optimize inference systems, and work across the stack—from data wrangling to production deployment using Docker and AWS. Passionate about generative AI, prompt engineering, and solving real-world problems using data.

### Education

- **PG Certificate in Applied AI & Data Science**, IIT Roorkee & Cloudxlab (*Aug 2025*)
- **Bachelors in Computer Applications (AI)**, VGU | CGPA: 8.23 (*Aug 2024*)
- **Senior Secondary (Commerce + Maths)** | D.A.V.Sr.Sec School | 85.2% (*Aug 2021*)

### Technical Skills

- **Languages:** Python, SQL, Bash
- **ML/AI:** Scikit-learn, TensorFlow, XGBoost, Keras, OpenCV, RAG, Vector DBs, Prompt Engineering
- **Data:** Pandas, NumPy, Matplotlib, Seaborn, EDA, Feature Engineering
- **DevOps & Tools:** Docker, Git, Linux (Shell scripting), AWS, VS Code, Jupyter, WordPress
- **Web & DB:** Django, MySQL, PostgreSQL, C-panel
- **Others:** Forecasting Pipelines, SEO Optimization, AMI Publishing

### Professional Experience

- **Jr. Engineer | CloudxLab (Terno & AI for Healthtech)**  
Remote | Dec 2024 - Present
  - Developed forecasting pipelines for sales prediction on real world data using recursive predicting logic, feature engineering, and fallback model logic.

- Built LLM-powered semantic search using Retrieval-Augmented Generation (RAG) on relational DBs for Terno AI.
- Designed Django management commands for data ingestion and schema export in Terno AI.
- Deployed Terno AI on AWS Marketplace, built custom AMIs, and wrote Docker Compose configurations.
- Created and managed SEO-optimized WordPress websites  
[Terno AI, AI for Healthtech](#)
- Delivered live demos to clients, trained interns on content pipelines, and conducted webinars on AI use cases.
- Wrote and optimized SEO-friendly articles and case studies: [Author Page](#)

**Tech:** Python, Django, ML, RAG, OpenAI, MySQL, PostgreSQL, Docker, AWS, Shell Scripts, GitHub, WordPress

#### ▪ **Academic & Content Writer | Viqasys Innovations**

Remote | Feb 2024 – Dec 2024

- Built and maintained 3 full-stack WordPress websites including C-panel and domain setups:  
[voguehandicrafts.in](#), [viqaweb solutions.com](#), [viqasys.com](#)
- Contributed to 25+ academic books for BJMC-MJMC & BA-MA English programs by conducting research and simplifying complex topics.

#### ▪ **Content Writer | Acloyte Technologies**

Jaipur | Nov 2023 – Feb 2024

- Drafted 200+ government grant applications and pitch presentations by interacting with clients to understand business models.
- Created detailed documents and decks using MS Office & Canva.

## Key Projects

- **Terno AI – Semantic DB Search & Forecasting**  
Built a semantic search system over structured databases using **RAG (Retrieval-Augmented Generation)** and **LLMs**, enabling text-to-SQL capabilities for enterprise data. Also developed real-time **forecasting pipelines** using recursive feature creation, fallback logic, and hyperparameter tuning.  
**Tech:** Python, OpenAI, Django, MySQL, Pandas, XGBoost, Matplotlib
- **AI-Powered Personal ERMS (Emergency Response Management System)**  
Co-developed an intelligent ERMS platform using AI for triaging emergency inputs and generating real-time alerts. This project was created as a side initiative during employment at CloudxLab.  
[Read Project](#)

- **Hospital Readmission Prediction**  
Built a machine learning model to predict hospital readmissions based on historical health and treatment data, with a focus on reducing patient risk and improving operational efficiency.  
[Read Case Study](#)
- **Django Web Game (Deployed App)**  
Created an interactive game using Django with PythonAnywhere deployment, showcasing backend logic, session handling, and real-time score tracking.  
[View App](#)
- **ML Foundations – GitHub Portfolio**  
A collection of Jupyter Notebooks demonstrating key machine learning concepts and end-to-end workflows.  
[GitHub: ML\\_Project Repository](#)  
**Highlights include:**
  - **ANN & CNN Models:** Trained deep learning models for classification tasks using TensorFlow and Keras.
  - **Regression Projects:** Implemented and evaluated Linear and Logistic Regression models for predictive analytics.
  - **Gradient Descent from Scratch:** Developed optimization algorithm manually to understand convergence mechanics.
  - **EDA & Data Cleaning:** Performed comprehensive data wrangling and visualization for multiple datasets.
  - **Capstone Project:** Integrated data preprocessing, modeling, and evaluation into a production-style ML pipeline.

## Certifications

- **PG Certificate in Applied AI & DS:** IIT Roorkee (*CloudxLab, Aug 2025*)
- **AI for Managers:** CloudxLab (*Mar 2025*)
- **Business Analytics using R:** NPTEL (*Apr 2023*)
- **Crash Course on Python:** Coursera (*Nov 2022*)
- **Basics of C:** Sololearn (*2020*)  
[My CloudxLab Learning Profile](#)

## Achievements & Activities

- **Hackathons:**
  - IIT Jodhpur (Sep 2022)
  - Vivekananda Global University (Oct 2023)
- **Webinars & Workshops:**
  - Attended and conducted webinars on AI/ML (topics: forecasting, RAG, LLMs, etc.)

## Languages

**English** (Professional) | **Hindi** (Fluent) | **Bengali** (Native)