Pratham Tiwari

🌐 Portfolio | 📞 9958333805 | ✉ prathamtiwari0123@gmail.com
GitHub | LinkedIn | </> LeetCode

Technical Skills

Programming Languages: Python, Java, C++
Machine Learning: Neural Networks (fundamentals), TensorFlow, model training and evaluation
Backend: Node.js, REST APIs, JSON-based data handling
Frontend: React, Next.js
Databases: MongoDB, MySQL
Tools: Git/GitHub, Docker

Projects

RAG-based AI Portfolio Assistant   *Next.js, Node.js, LLaMA (API)*

- Built an AI assistant to answer questions about my background, projects, and achievements using **Retrieval-Augmented Generation (RAG)**.
- Implemented a two-step pipeline: intent and semantic understanding using LLaMA, followed by cosine-similarity–based retrieval and grounded response generation.
- Worked on **hallucination reduction** by constraining context and refining prompt structure.
- Identified limitations in multi-turn context awareness and documented failure cases for future improvement.
- Deployed as a public portfolio with **role-based content modes (casual / technical / recruiter)** to adapt responses for different audiences.

ClimaShield — Experimental ML Pipeline for Climate Risk Signals   *Python, TensorFlow, React Native, Firebase*

- Designed and implemented an end-to-end experimental ML pipeline to explore climate-risk signal prediction under **synthetic data constraints**.
- Trained a feedforward neural network and analyzed prediction saturation in extreme input ranges due to limited data variance.
- Observed underestimation in high-risk scenarios (e.g., >90% targets predicted as ∼75–80%), highlighting dataset limitations.
- Integrated the trained model into a mobile application to demonstrate inference flow and system integration.
- Advanced to the **2nd round of PCCOE IGC 2026 Hackathon** based on technical clarity and system design.

Achievements

Entrepreneurship Challenge Winner (2×)

- Secured first place twice for the **InfinityAR** project (Feb 2025, Oct 2025).
- Outperformed **60–70 competing teams** across both competitions.

AlgoArena Coding Competition — 2nd Place

- Placed second in **AlgoArena 2025** among multi-institutional teams.
- Organized by **I2IT ACM** in collaboration with **ACM-W**.

Positions of Responsibility

AR/VR Head — GDG Campus Chapter
Led technical planning and coordination for AR/VR-focused initiatives and sessions.

Education

B.Tech in Computer Engineering
International Institute of Information Technology, Pune
CGPA: 9.32