

PRANAY KAPOOR

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EDUCATION

Manipal Institute of Technology

B.Tech in Computer Science (Honours)

Bengaluru, India

Jul 2023 – Present

- **CGPA:** 8.68 / 10
- **Granted the Scholars Scholarship (Top 9)**

TECHNICAL SKILLS

Languages: Python, C, C++, Java

Core CS: Data Structures and Algorithms, OOPS, Computer Architecture, Embedded Systems

Operating Systems: Processes, Threads, Memory Management, File Systems, ARM Assembly, Compiler Design, CUDA, MPI, OpenCL

Platforms: Windows, Linux

Web / Backend: Flask, FastAPI

Data & Tools: NumPy, Pandas, SQL, MongoDB, Git, Docker

ML/AI: PyTorch, TensorFlow, HuggingFace, OpenCV

EXPERIENCE

Artificial Intelligence Intern

Teachnook × IIT Roorkee Cognizance

Jun 2024 – Jul 2024

Remote

- Built end-to-end machine learning pipelines in Python, including data preprocessing, feature engineering, model training, and evaluation.
- Applied regression and classification models, analyzed performance metrics, validated results, and iterated on features to improve predictive accuracy.

PROJECTS

NexaCred: Fullstack Web App with ML-Driven Credit Scoring and Blockchain

2025

React, Node.js, Python, Solidity, Docker, AWS

- Designed and developed a full-stack web application enabling peer-to-peer lending with secure user workflows and transaction management.
- Built backend services and REST APIs to orchestrate interactions between the web application, machine learning pipeline, and blockchain layer.
- Integrated a LightGBM credit scoring system with F1 accuracy of 0.992 and G-mean=0.918
- Implemented blockchain smart contracts to ensure transparent, tamper-resistant loan execution and on-chain activity tracking.
- Containerized backend services using Docker and deployed the system on AWS for scalable and reproducible execution.

LLM-Based Conversational Imitation Model

2025

Python, PyTorch, HuggingFace

- Fine-tuned a GPT-2 model on anonymized conversational data.
- Built preprocessing pipelines for data cleaning, anonymization, and tokenization.
- Evaluated outputs for coherence, consistency, and performance limitations.

Synthetic Data Generator

2024

Python, SDV, CTGAN

- Developed a synthetic data generation system supporting schema-based dataset design.
- Implemented dataset validation rules and integrity checks.
- Compared generated data distributions against real datasets to assess fidelity.

Arrodes — Discord Bot

2025

Python, Disnake, APIs

- Developed and maintained a feature-rich Discord bot using the Disnake library to enhance server management.
- Implemented custom commands, interactive events, and moderation tools to improve community engagement.
- Integrated external APIs to extend bot functionality and automate workflows for users.
- Structured code for modularity, maintainability, and seamless feature expansion.