Pratyush Jain

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Education

Shiv Nadar University **Aug. 2022 – May 2026**
B.Tech in Computer Science Engineering (CGPA: 7.81) *Greater Noida, UP*
Minor in Management Studies

Vivekanand School **June 2022**
Class XII PCM: 84.2% *Anand Vihar, Delhi*

Delhi Public School Ghaziabad **March 2020**
Class X: 92.8% *Ghaziabad, UP*

Internships

Infinite Computer Solutions **July 2025 – August 2025**
Summer Intern *Noida, Sector 58*

- Engineered a high-performance **billing engine** in Python for ongoing UPPCL project, achieving nearly **4.8x improvement in data processing and generation speed** over legacy tools.
- Optimized a data pipeline for large-scale data ingestion using parallel processing, reducing memory footprint by 40%.
- Designed and **implemented a real-time executive dashboard** to visualize key performance indicators (KPIs) and operational SLAs, providing actionable insights that significantly reduced incident diagnosis time.

OneDios **June 2023 – July 2023**
Summer Intern *Noida, Sector 62*

- Analyzed user journey maps for ONDC API integration and translated enterprise client business needs into technical specifications, helping optimize CRM workflows to accelerate ticket resolution.

Projects

CredScope: End-to-End Credit Risk Scoring System | *Python, LightGBM, XGBoost, Optuna* **In Progress**

- Building an end-to-end MLOps project based on the Kaggle Home Credit dataset to predict default risk, focusing on model deployment and responsible AI.
- **Achieved:** Engineered **522 predictive features** from 7 relational tables (58M+ records) and built a high-performance stacked ensemble (LightGBM, XGBoost, CatBoost) with an **AUC of 0.7908**.
- **Ongoing:** Developing a **FastAPI** service for real-time scoring and a Streamlit dashboard with **SHAP** integration for model explainability and fairness auditing.

Traffic Management System | *C++, Multithreading, System Design* **Spring 2024**

- Developed a high-performance, multithreaded traffic simulation, handling up to **500+ concurrent vehicles** across a complex road network without deadlocks.
- Designed a unified system featuring real-time congestion management via dynamic rerouting and a separate priority preemption logic, demonstrably improving overall traffic flow while **slashing emergency vehicle transit times by 40%**.

Publications

An Integrated Graph Neural Network Framework for Holistic Microservice Management in Cloud Ecosystems **16th ICCCNT, 2025**
Pratyush Jain, N. Singhal, A. E. Rayipudi, S. Kumari

* Co-authored a research paper **accepted and published at IEEE**'s 16th International Conference on Computer and Communication Network Technology (ICCCNT), 2025.
* Proposed and designed an integrated framework using GNNs to holistically manage the lifecycle of complex microservice applications, addressing the failures of traditional management strategies.

Technical Skills

Languages: C++, Python, MySQL
Developer Tools: VSCode, Git & GitHub, Jupyter Notebook, PyCharm
Relevant Coursework: Minor in Management Studies, Specialisation in Data Science