Vansh Deshwal

Education

Indian Statistical Institute, Kolkata

2024 - 2026

M. Tech in Cryptology and Security

Bhagwan Parshuram Institute of Technology

2018 - 2022

B. Tech in Electronics and Communication Engineering

Certifications & Coursework

- Deep Learning Specialization by Andrew Ng
- Programming and Data Structures
- Algorithms

- Machine Learning
- Information Theory
- DBMS

Projects

BitBot | Langchain, LangGraph, FastAPI

Ongoing

- Developed and deployed a multi-agent AI chatbot using LangChain & LangGraph for both general and domain-specific Q&A.
- Implemented semantic search and context-aware responses using Azure OpenAI & Pinecone vector database.
- Designed scalable backend APIs with FastAPI, async processing, caching, and CI/CD deployment to Azure via Docker.

Risk Level Prediction Platform | xq-boost, asure, Fast API

April 2025

- Designed and implemented an end-to-end ML pipeline to assess and classify client profiles using structured tabular data.
- Engineered **feature transformation pipelines** and performed extensive **model benchmarking** (Logistic Regression, Random Forest, XGBoost) with hyperparameter optimization.
- Developed a production-ready FastAPI service with Excel/JSON ingestion, real-time inference, and structured output for downstream systems.

ML Playground | Python, scikit-learn, FastAPI

Jan 2025

- Built an interactive platform integrating multiple machine learning techniques with a modular and extensible architecture.
- Designed backend workflows to handle dynamic computations and visualizations for diverse algorithmic experiments.
- Implemented efficient deployment pipelines ensuring smooth integration of computational components with a user-facing interface.

Experience

Data Science Intern — Telecommunications Consultants India Limited

Mar '21 – Apr '21

 $On ext{-}Site$

Intern

- Assisted in developing the complaint management system by preparing and analyzing complaint data from the MySQL database.
- Conducted **exploratory data analysis (EDA)** to identify frequent complaint categories and resolution patterns.
- Created simple **reports and visualizations** to support decision-making by the management team.

Technical Skills

Languages: Python, SQL, C

Libraries/Frameworks:, NumPy, Pandas, scikit-learn, matplotlib, seaborn, PyTorch, FastAPI

Tools: Jupyter, Git, Docker, Streamlit, Tableau, Linux, VS Code

Concepts: Supervised/Unsupervised Learning, Neural Networks, NLP, CV, EDA, Statistics

Leadership / Extracurricular

Placement Coordinator, ISI

Aug 2024 - Present

Placement Cell Kolkata, India

- Coordinated with companies and students to facilitate internship and job placements.
- Organized mock interviews and resume review sessions for peers.