

**PRAKHAR PANDEY**Course : **B.E. (Hons.)**, Computer Science and **M.Sc. (Hons.)**, Physics, 2025

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COURSE	INSTITUTE/COLLEGE	BOARD/UNIVERSITY	SCORE	YEAR
CLASS XII	Dr. VIRENDRA SWARUP EDUCATION CENTRE , KIDWAI NAGAR , KANPUR	ISC	96.5 %	2019
CLASS X	Dr. VIRENDRA SWARUP EDUCATION CENTRE , KIDWAI NAGAR , KANPUR	ICSE	91.2 %	2017

Subjects / Electives	Probability and Statistics , Object Oriented Programming , Data Structures and Algorithms , Database Management Systems , Principles of Economics , Organizational Psychology , Machine Learning , Natural Language Processing
Technical Proficiency	Java, Python3 , Tensorflow, Matplotlib , Machine Learning , Deep Learning , C Programming , C++ , MySQL , Docker , Adobe Photoshop , Figma , Git , HTML + CSS , PyTorch , Abaqus , LangGraph , FastAPI , MongoDB , Streamlit , GCloud

SUMMER INTERNSHIP / WORK EXPERIENCE

Research Project Intern , Department of CSIS , BITS Pilani	Jan 2024 - May 2024
<ul style="list-style-type: none">Contributed to BITS-CDRF sponsored project Structural Health Monitoring of Bridges using Digital Twins and Transfer Learning .Utilized Python scripts in ABAQUS to conduct FEA/Vibrational Analysis of generated damaged digital twins for global health monitoring .Used CNNs for local crack detection using images . Monitored the ongoing construction of a physical bridge to apply transfer learning /fine-tuning .Examined more than 10 research papers to develop state-of-the-art framework diagrams and damage detection /classification techniques .	
Data Analyst Intern , Sampark Foundation	May 2022 - Jul 2022
<ul style="list-style-type: none">Worked on Sampark Foundation mobile platform impacting 75,000+ govt. schools , training 20,000+ teachers through technological innovations .Organized data markers using Firestore console , segregating information based on event types , application pages and usability metrics .Analyzed user acquisition , engagement and demographic patterns using Google Analytics 4 platform for comprehensive user behavior insights .Created journey maps and performed funnel analysis for popular user paths using path exploration and free-form analysis techniques .	

PROJECTS

Agentic Technical Interview AI - LLM Prompt Engineering & LangGraph Framework	May 2025 - Jun 2025
<ul style="list-style-type: none">Built a full-stack platform using Streamlit frontend and FastAPI backend with OpenAI GPT-4 for multi-topic profile-based question generation .Implemented LangGraph state-machine with MongoDB thread checkpointing for context-aware follow-up questions and user session continuity .Containerized with Docker and deployed on Google Cloud Run with MongoDB Atlas for authentication and concurrent session handling .	
Sentiment Analysis of Alexa Amazon Reviews - Natural Language Processing	Oct 2023 - Nov 2023
<ul style="list-style-type: none">Constructed a Sentiment Analysis network on Amazon Alexa reviews using pre-trained BERT model with custom smallBERT encoder layer.Applied both zero-shot inference and fine-tuned model training with WordNetLemmatizer and WordPieceTokenizer for text preprocessing .Performed hyperparameter tuning using dropout regularization and AdamW optimizer varying attention heads and layers for model optimization .	
Attendance Management System - Database Management	Feb 2023 - May 2023
<ul style="list-style-type: none">Developed an automated 3NF SQL based procedural system for tracking attendance for students and employees in an educational institution .Provided features like user authentication /login, absentee alerts , and key analytical reports and trends on attendance for admins and teachers .	
Cab Sharing Portal - Object Oriented Programming	Sep 2022 - Dec 2022
<ul style="list-style-type: none">Designed a cab booking /sharing system for college students using JAVA with live pop-up notifications for cab sharing .Utilized JAVA Faker library to add synthetically generated student profiles and booking records with randomised credentials to our database .Used OOP concepts like Multithreading , Inheritance , and Interfacing . All code was implemented in accordance with the SOLID principles .	

POSITION OF RESPONSIBILITY

Secretary and Design Head - Physics Association , BITS Pilani	Jul 2022 - May 2023
<ul style="list-style-type: none">Guided and managed recruitment and development of over 100 students in academic and social activities within the physics association .Acted as POC between college physics department and student body, conducting guest faculty talks, award ceremonies and farewell events .Managed treasury operations , social media presence and fest events while contributing to poster and theme design initiatives .	

ACHEIVEMENTS AND CERTIFICATIONS

CERTIFICATION	CERTIFYING AUTHORITY
Unsupervised Learning , Recommenders , Reinforcement Learning	DeepLearning.AI
Advanced Learning Algorithms by Andrew NG	DeepLearning.AI
Supervised Machine Learning : Regression and Classification	DeepLearning.AI