

# Deep

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## Education

### Thapar Institute of Engineering & Technology, Patiala

Master of Computer Applications (MCA)

Aug 2024 – May 2026

CGPA: 8.18

### Kurukshetra University, Kurukshetra

Bachelor of Science (B.Sc.)

Aug 2021 – July 2024

Percentage: 64.2%

## Experience

### Machine Learning Intern | Cognifyz Technology (Remote) — [GitHub Link](#)

- Executed three ML projects in the restaurant domain covering regression, recommendation, and classification with complete data preprocessing and model evaluation.
- Built a rating prediction model using Linear Regression and Decision Tree Regressor ( $R^2 = 0.98$ ) and a cuisine-based recommender using one-hot encoding and Jaccard similarity.
- Implemented a cuisine classification model via Decision Tree Classifier, optimizing accuracy through encoding, normalization, and handling class imbalance.

## Projects

### NLP Text Summarization with MLOps | Python, Transformers, Pegasus, FastAPI, Docker, DVC, MLflow, GitHub Actions — [GitHub Link](#)

- Fine-tuned Pegasus Transformer for abstractive text summarization in a configuration-driven MLOps pipeline.
- Automated data flow, training, and experiment tracking with MLflow & DVC for reproducible results.
- Deployed a real-time summarization API using FastAPI and Docker.

### E-commerce Sales Analytics Dashboard | Power BI, MS SQL Server, DAX, Power Query, Data Modelling — [GitHub Link](#)

- Designed an interactive Power BI dashboard to analyze YTD Sales, Profit, Quantity, and Profit Margin across categories, segments, and regions.
- Integrated data from MS SQL Server and flat files, performed ETL in Power Query, and built a star schema model with a Date dimension.
- Created dynamic KPIs, trend lines, and slicers using advanced DAX for data-driven business insights.

### End-to-End Medical AI Chatbot | Python, LangChain, Hugging Face, Pinecone, Flask, FLAN-T5 — [GitHub Link](#)

- Built an AI medical chatbot using The Gale Encyclopedia of Medicine for accurate, context-based health Q&A.
- Implemented a RAG pipeline with LangChain, Hugging Face embeddings, and Pinecone for semantic retrieval.
- Developed a Flask web app for real-time user interaction with secure API key handling.

## Technical Skills

**Programming:** C++, Python, SQL

**Tools & Platforms:** VS Code, Jupyter, Git/GitHub, MySQL Workbench, Docker, FastAPI

**Data & Visualization:** Pandas, NumPy, Matplotlib, Seaborn, Plotly, Power BI

**ML & NLP:** Scikit-learn, Random Forest, Logistic/Linear Regression, KNN, NLTK

**Core CS:** OOP, Software Engineering, DBMS

## Certificates

- Kaggle — Intro to Machine Learning — [Certificate Link](#)
- Deloitte Australia (Forage) — Data Analytics Job Simulation — [Certificate Link](#)
- Tata (Forage) — GenAI Data Analytics Job Simulation — [Certificate Link](#)