

PRERNA PANDEY

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SUMMARY

Highly motivated and skilled in data analysis, machine learning and data driven decision making, with hands-on experience in developing NLP models, predictive analytics and deep learning solutions. Passionate about leveraging technology to solve real-world problems,optimize processes and drive innovation through strong analytical and problem-solving skills.

EXPERIENCE

Machine Learning Intern(Genz Educatewing)

June 2024-July 2024

- Developed a BERT-based sentiment analysis model for classifying text data, optimizing performance using NLP techniques and evaluation metrics.
- Built a fake news detection model using Naive Bayes and NLP techniques, implementing feature selection, model training and performance evaluation.

PROJECTS

Student Performance Prediction

- Developed a machine learning model to predict student performance, achieving 88% accuracy using ensemble models.
- Built and deployed a Flask API on Microsoft Azure for real-time predictions, ensuring scalability and accessibility.

Credit Risk Scoring App

- Built a credit risk model to predict loan default probability using financial and credit history data, achieving 0.91 AUC demonstrating strong classification performance for imbalanced datasets.
- Preprocessed and engineered features, handled class imbalance using SMOTE and deployed the model via a Flask API for real-time loan risk scoring.

Document Question Answering System with RAG

- Developed an AI-powered Document Q&A system using Retrieval-Augmented Generation (RAG) with LangChain for orchestrating document retrieval,prompt handling and FAISS vector database for efficient similarity search.
- Integrated Mistral LLM to generate context-aware answers from custom documents, enabling accurate, real-time responses to user queries.

SKILLS

Programming Languages: Python, SQL.

Data Science & AI Concepts: Machine Learning, Deep Learning, Predictive Modeling, CNN,Model Evaluation, Data Science,NLP,Statistics, DataPreprocessing,LLM,Langchain,VectorDB.

Libraries & Frameworks: Scikit-learn, TensorFlow, Keras, Pandas, NumPy, Matplotlib, Seaborn,NLTK.

Data Handling & Visualization:EDA, Feature Engineering, Power BI, Data Visualization.

Tools & Platforms:Git, Jupyter Notebook, Visual Studio Code.

Soft Skills: Problem-Solving, Analytical Thinking, Team Collaboration, Communication, Analysis Skills.

EDUCATION

Masters of Computer Applications (Artificial Intelligence & Machine Learning)- Chandigarh University	2025
Bachelors of Science - Panjab University,Chandigarh	2023

CERTIFICATES

Data Visualization and Dashboards with Excel and Cognos (Coursera)

September, 2024

Python3 Programming (Coursera)

September, 2023

Business intelligence and data analytics: Generate insights(Coursera)

September,2024

Introduction to Data Analytics(IBM)(Coursera)

September,2024