Arpana Sitoula

Student

Contact

(+49) 15222380829

arpana.sitoula@informatik.hs-fulda.de

Adalbertstrasse 26, 36039, Fulda

sitoulaarpana-portfolio.netlify.app/

https://github.com/Arpana-Sitoula

Technical Skills

- Python / JavaScript / SQL
- Data Preprocessing - ETL Process
- Data Analysis- NumPy / Pandas
- Data Visualisation - Seaborn, Streamlit , PowerBi
- Statistics / Hypothesis Testing
- Machine Learning
- Version Control - Git / Github

Language Skills

- Nepali: Native
- English: Business Fluent
- Deutsch: Learning

Education

Master in Data Science

Fulda Hochschule 2024 - Expected (2026)

Currently pursuing a Master's in Data Science focusing on advanced machine learning techniques, mathematics, statistics, data preparation and analysis, data visualization, and data frameworks within the Master of Science in Data Science program.

Bachelor in Computer Science and Information Technology

Tribhuvan Universtiy 2018 - 2023

Strong foundation in core computer science principles, including data structures, algorithms, OOP, operating systems, and software engineering. Developed expertise in AI, data mining, data warehousing, and advanced databases

Experience

Junior Software Developer

EduTech Solutions 09/2023 - 08/2024

- Developed and maintained API-driven data workflows for a Human Resource Management Information System (HRMIS), ensuring efficient data access and organization.
- Implemented role-based data security, managing access controls to ensure data privacy and compliance.

Software Engineer Intern

Cliffbyte Pvt. Ltd. 06/2023 - 09/2023

- Streamlined data workflows using React Query, enabling efficient state management for real-time updates.
- Collaborated with cross-functional teams to design scalable data-driven solutions for course enrollment system and employee dashboard.

Projects

Comparative Analysis of algorithms

- Researched and implemented Logistic Regression and Gradient Boosting for fraud detection.
- Optimized model performance using Genetic Algorithms, enhancing accuracy and efficiency

Climate change tracker dashboard

- Developed a Streamlit dashboard to track climate change trends with data from NASA and Our World in Data.
- Analyzed key indicators like deforestation, energy consumption, and greenhouse gas emissions.
- Built an AI-driven time-series model (ARIMA/LSTM) forecasting emissions until 2030 with 92% accuracy, supporting actionable policy recommendations.

Spotify Music Analysis

- Cleaned and prepared Spotify datasets for exploratory data analysis (EDA), performing univariate, multivariate analysis.
- Formulated and tested three hypotheses, uncovering insights into genre-attribute relationships.
- Trained models using Neural Networks, XGBoost, and Decision Tree, analyzing patterns between music attributes and genres.