



Arpana Sitoula

Student

Contact

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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 University 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.