SUMAN BHATTARAI

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SUMMARY

Enthusiastic and driven graduate in Automobile Engineering with a strong passion for autonomous systems, IoT, and their applications in agriculture and environmental sustainability. Eager to contribute to innovative solutions that bridge technology and real-world impact.

EDUCATION

Bachelors in Automobile Engineering, IOE Thapathali Campus, kathmandu   **March 2021 - April 2025**
Coursework: Applied Statistics, Matrix, Probability, Polynomial and Differential integrations

SKILLS

Programming: Python | C | Excel |
Machine Learning: Supervised-Unsupervised ML methods, Linear regression, Xgboost model
Analytics: Scientific thinking, Research, Data-visualisation

EXPERIENCE

Data Intern   **October 2023 - Nov 2023**
Elytra Solutions, Kathmandu, Nepal
- Completed a data analysis project using Python, applying statistical techniques like regression to improve the accuracy of results.
- Developed a Python script to automatically update files when data changed, reducing manual work and improving data consistency.

PROJECT

Predicting Ocean Carbon Levels Using Machine Learning
- Helped predict ocean carbon levels using data like temperature, salinity, and oxygen to support research on marine ecosystems.
- Built and tested different machine learning models (linear regression and XGBoost) to find the most accurate one for making predictions.
- Worked with a historic research organization to improve understanding of how ocean conditions affect carbon levels, using real-world environmental data.

Smart Mobility Aid: Stair-Climbing Wheelchair with Adaptive Control
- Designed a semi-autonomous stair-climbing wheelchair with hybrid wheel-track mobility, enabling adaptive movement over flat and inclined surfaces.
- Implemented control logic for automatic mode transition using sensor feedback, with future scope for AI-based path planning and obstacle detection.
- Applied data-driven structural analysis (ANSYS) to validate performance under varying load conditions, ensuring a safe and intelligent design foundation.

CERTIFICATION

Introduction to Python (Datacamp)
Intermediate Python (Datacamp)
Data Manipulation with Pandas (DataCamp)
Introduction to Machine Learning (DataCamp