DEEPANSHU GUPTA

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EDUCATION

Degree/Certificate	Institute	CGPA / %	Year
M. Tech (Department of Management Sciences)	Indian Institute of Technology, Kanpur		2025 - Present
B. Tech (Textile Technology)	NIT-Jalandhar	8.14	2019 - 2023
Higher Secondary Education (CBSE)	Rayat International School, Punjab	84.8%	2019
Secondary Education (CBSE)	Rayat International School, Punjab	10	2017

PROJECTS

Marketing strategy to predict the most probable buyers from loyalty program participants | ML | Classification (GitHub Link) | (Self Project)

Objective	• Developing a predictive model using data analytics and machine learning to **identify the most probable buyers** for the new organic product line • Enabling organisation to target a specific set of customers with personalised marketing messages and other sales techniques, thereby **optimising marketing strategy** and **increasing product penetration**
Approach	• **Extracted and cleaned customer data** using spreadsheets and MySQL; handled nulls, missing data and encoded categorical features for ML use. • Built and validated a **logistic regression model (Scikit-learn)** to classify buying behaviour; used 80:20 train-test split • **Applied** the trained model **to predict purchase probabilities** for the remaining customer base and ranked them based on buying likelihood. • **Shortlisted high-probability customers (> 65%)** for focused marketing, enabling efficient targeting and resource optimisation. • **Toolset**: Spreadsheets, MySQL, Python (NumPy and Pandas), Machine learning (Scikit Learn, Joblib)
Result	• The machine learning model had an accuracy score of 81%. • Compared three scenarios: **(i) no model-based targeting, (ii) top 40% predicted buyers, and (iii) top 30% predicted buyers.** • 3rd scenario resulted in the highest estimated profit, demonstrating the effectiveness of model-based selective targeting.

CO_2 Emission Prediction | Machine Learning | Regression (GitHub Link) | (Self Project)

Objective	• The objective of the project is to analyse the **influence of various variables on CO_2 emissions** in vehicles and identify the **most significant features** affecting CO_2 emissions
Approach	• Conduct **Exploratory Data Analysis (EDA)**, **Correlation Analysis** on the provided dataset to investigate relationships between different vehicle features and CO_2 emissions. • Utilise **statistical techniques** and **visualisations** (**Prediction Error visualisation**, for a Linear Regression model, which helps to understand how well Linear Regression model is performing) to assess the influence of variables. • **Toolset**: NumPy, Pandas, Matplotlib, Seaborn
Result	• Performance achieved with Linear Regression: **R^2 Score 0.874, RMSE 20.516** • The visualization helps to identify **patterns** in the **prediction errors** made by Linear Regression model.

Credit Card Fraud Detection | Machine Learning | Classification (GitHub Link) | (Self Project)

Objective	• To classify whether a given transaction is fraudulent or not using machine learning classification algorithms.
Approach	• Package used (**Pandas, Numpy, Matplotlib, Scikit-learn**). • Used **under-sampling & over-sampling (SMOTE technique)** method to deal with **imbalanced dataset**. • Used classification algorithms: **Logistic Regression, KNN** for prediction.
Result	• Various **classification matrix** were used to compare the models. Logistic Regression performed the best

WORK EXPERIENCE

❖ **Reliance Industries Limited | (Aug 2023 - July 2025)**

Executive Manager: Sustainability and Circular Economy (Aug 2024 - July 2025)

- Managed RIL's **EcoVadis sustainability assessment**, including questionnaire coordination, stakeholder review, scorecard tracking, score improvement initiatives, and monitoring value chain partners
- Coordinated with cross-functional teams to update and maintain the company's quarterly **BRSR report**
- Coordinated and facilitated the acquisition of key **sustainability certifications** for the company's recycling initiatives
- Collaborated on the **Life Cycle Assessment study** for RIL's chemically recycled circular polymers

Graduate Engineer Trainee: Business Development (Aug 2023 - Aug 2024)

- Part of the **Graphene** team, was involved in the development of a new product line – **HEXaREL print**
- Worked on **optimising variables and parameters involved** in the printing process to make the product production process scalable and commercially viable
- **Conducted successful trials**, with product showcasing various required properties like electrical and thermal conductivity

COURSEWORK & SKILLS

**in progress*

Relevant Courses	Introduction to Computing (Python)* | Probability & Statistics* | Operations Research for Management* | Statistical Modelling for Business Analytics*
Skills	Python | ML Libraries: NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn | MySQL | MS Excel
Certifications	• **PCAP: Programming Essentials in Python (Python Institute)** • **Python with Data Science and Machine Learning (NIELIT Chandigarh)** • **Google Data Analytics (Coursera)**

ACHIEVEMENTS & EXTRACURRICULAR

- Secured **AIR 48** in GATE '25 (Textile Engineering and Fibre Science)
- Secured **Runner-up position at the State level** in **Bharat Ko Jano**, a national-level quiz competition
- Volunteered with **PRAYAS**, a student-led initiative to educate underprivileged children
- Represented **school** and **district** in the state-level **table tennis championship** (Under-19 category)