



Sahil Saroj

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Bachelors of Technology

Materials and Metallurgical Engineering

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EDUCATION

Maulana Azad National Institute of Technology Bhopal

2022 – 2026

B.Tech in Materials and Metallurgical Engineering

CGPA: 8.08/10

BBS Inter College Pratapgarh, Uttar Pradesh

2021 – 2022

Intermediate Education - 12th CBSE, Uttar Pradesh

Percentage: 88.4

Erny Memorial School, Prayagraj

2019 – 2020

High School - 10th CBSE, Uttar Pradesh

Percentage: 96.5

WORK EXPERIENCE

IIT Ropar, Punjab | Data Science Intern

May 2024 - July 2024

- Collaborated with researchers to develop a regression-based machine learning model achieving 85% accuracy in predicting relationships between key material properties in weld joint heat-affected zones.
- Performed end-to-end data handling by executing ETL processes, applying cleaning and transformation techniques using Pandas and NumPy to prepare high-quality datasets for accurate model training and evaluation.
- Tools and technology used: Pandas, Numpy, Matplotlib, Seaborn, Jupyter Notebook, Excel.

PROJECTS

Customer Churn Analysis-BCG | Python, Random Forest Modeling, Business Understanding

[Link](#)

- Completed an end-to-end customer churn analysis simulation, identifying key client attributes, outlining investigation strategy, and applying advanced analytics to uncover churn patterns.
- Engineered and optimized a random forest classification model, achieving 50% recall in churn prediction, and applied EDA, feature selection, and data transformation using Pandas and NumPy.

Product Analytics Dashboard for Amazon | Data Cleaning, Exploratory Data Analysis, SQL

[Link](#)

- Analyzed 75% of products rated between 3.5–4.5 and found a weak correlation (0.2) between discounts and ratings; flagged 10% of 50%+ discounted items in Electronics and Home categories..
- Executed advanced SQL queries and built a Power BI dashboard to track rating variance, revenue trends, and low-rated, high-discount items (10%) for pricing and quality improvements.

T20 Match Outcome Predictor | Python, Streamlit, Scikit-learn, Logistic Regression

[Link](#)

- Built and deployed a full-stack IPL match-winner prediction app using Python, Streamlit, and scikit-learn; implemented feature engineering, EDA, model tuning, and real-time inference with 81% accuracy.
- Processed 600+ IPL match records using Pandas and NumPy, serialized models with Pickle, integrated a responsive UI, and deployed the GitHub-versioned app on Render for live public use.

A/B Hypothesis Evaluation | EDA, Seaborn, A/B Testing, Hypothesis Testing, Regression Analysis

[Link](#)

- Performed A/B testing and hypothesis testing on Facebook vs AdWords data to assess platform impact on key metrics; found no significant difference in Ad Clicks ($p = 0.72$).
- Extended analysis with a multiple linear regression model ($R^2 = 0.59$, $RMSE = 0.084$) to predict Ad Conversion rate and important features .

TECHNICAL SKILLS AND INTERESTS

Languages: Python, SQL, C

Developer Tools: Jupyter Notebook, MySQL workbench, Excel, PowerBi, Tableau, Google Optimize, Powerpoint

Frameworks: Pandas, Numpy, Scikit-learn, Matplotlib/Seaborn

Databases: MySQL, Microsoft SQL Server, PostgreSQL

Soft Skills: Effective Communication, Event Coordination, Presentation skills, Leadership and Organization skills

POSITIONS OF RESPONSIBILITY

•Vice-President, The Institute of Indian Foundrymen (IIF)

July 2024 - Present

•Representative, Department of Materials and Metallurgical Engineering, Manit Bhopal

2023-24

•Executive, Intellect Browsers' Consortium (IBC)

2022-23

CERTIFICATE

•Completed BCG Data Science Simulation, applying analytics to business case scenarios.

BCG

•Microsoft-certified in data analysis, visualization, Excel, and reporting fundamentals.

Microsoft

•Career Essentials in Business Analysis.

Microsoft

•Participant at National Conference on Advances in Metallurgical Engineering.

Manit Bhopal

•Earned Hackerrank SQL Advanced Certification for complex data querying proficiency.

Hackerrank