MOUSOM KOLEY

Kolkata, West Bengal, India

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Professional Summary

B.Tech Information Technology graduate with hands-on experience in Python, SQL, machine learning, data analytics, Generative AI, Streamlit, Flask, Power BI, and MySQL. Built end-to-end AI, analytics, computer vision, database, and web applications involving data preprocessing, exploratory analysis, model development, API integration, dashboards, and deployment. Seeking entry-level opportunities in software engineering, Python development, data analytics, AI/ML, Generative AI, application support, or technology operations.

Technical Skills

Programming: Python, SQL, HTML, CSS, JavaScript, OOP, Data Structures and Algorithms

Data and Analytics: Pandas, NumPy, Matplotlib, Seaborn, Excel, Power BI, EDA, Data Cleaning, Data Visualization

AI and Machine Learning: Scikit-learn, TensorFlow, Keras, Regression, Classification, Computer Vision, Generative AI, Prompt Engineering

Development: Streamlit, Flask, REST APIs, Gemini API, Git, GitHub, Jupyter Notebook, Google Colab

Databases and Cloud: MySQL, Oracle SQL, AWS EC2, AWS S3, Microsoft Azure Fundamentals

Experience and Training

Data Analytics and Machine Learning with Generative AI **Apr 2026 – Aug 2026**

Anudip Foundation – Accenture CSR Centre of Excellence *Kolkata, India*

- Performed data cleaning, preprocessing, exploratory data analysis, and visualization using Python, Pandas, NumPy, SQL, Excel, and Power BI.
- Built and evaluated supervised machine learning models for regression and classification using Scikit-learn.
- Applied Generative AI and prompt engineering to support analysis, reporting, documentation, and AI-assisted workflows.
- Worked on practical datasets and project-based assignments while using Git and GitHub for version control.

Projects

SnapSolver – AI-Powered Academic Assistant — *GitHub* *2026*

- Developed a Streamlit-based academic assistance application using Python and the Gemini API to generate step-by-step solutions for student queries.
- Implemented image-based question input, voice typing, solution history, interactive responses, and prompt-driven AI workflows.

CarbonX – Carbon Credit Trading Platform — *GitHub* *2026*

- Designed a Streamlit and MySQL platform for company registration, carbon-credit transactions, projects, audits, certificates, payments, and reporting.
- Created a relational database schema and SQL trigger logic to update company carbon balances automatically after completed trades.

Insurance EDA and Cost Prediction — *GitHub* *2026*

- Performed exploratory data analysis and developed a regression workflow to predict medical insurance charges from demographic and lifestyle attributes.
- Built a Scikit-learn preprocessing pipeline with one-hot encoding and evaluated performance using MAE, MSE, RMSE, and R-squared.

Waste Classification AI — *GitHub* *2026*

- Built an image-classification application using TensorFlow, Keras, and Streamlit to identify biodegradable and non-biodegradable waste.
- Worked on image preprocessing, model inference, class prediction, and an interactive interface for AI-assisted waste segregation.

HR Attrition Analytics Dashboard — *GitHub* *2026*

- Analyzed a 1,470-record HR dataset and created an interactive Power BI dashboard to examine attrition by department, role, age, income, and experience.
- Used data transformation, calculated fields, KPIs, filters, and business-focused visualizations to communicate workforce trends.

PayPerform 360 – Payroll and Employee Performance Analytics — *GitHub* *2026*

- Created an Excel-based payroll and performance solution using formulas, PivotTables, dashboards, bonus calculations, and total compensation analysis.
- Applied data validation, lookup functions, structured reporting, and VBA-based navigation to improve usability.

Satellite Image Analytics – Crater and Boulder Detection — *GitHub* *2025*

- Explored computer-vision techniques for detecting and analyzing craters and boulders in satellite imagery for a hackathon-oriented use case.
- Worked with image preprocessing, object-detection concepts, visual analysis, and geospatial problem framing.

Education

Bachelor of Technology in Information Technology **2022 – 2026**
Government College of Engineering & Leather Technology *Kolkata, West Bengal*

CGPA: 7.0/10

Certifications and Achievements

- **EF SET English Certificate:** C2 Proficient, 79/100 – July 2026
- **Microsoft Azure Cloud Fundamentals**
- **Power BI for Data Analytics and SQL for Data Analysis**
- **Infosys Springboard:** Design Thinking, Business Communication, and Time Management
- **WBJEE 2022:** General Merit Rank 3112