

SANDIP KUMAR TRIPATHY

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Education

National Institute of Technology, Rourkela

Nov 2022 – Present

Bachelor of Technology in Civil Engineering (First Class)

Rourkela, Odisha

- **Relevant Coursework:** Principles OF Economics, Financial Modeling, Market Research, Business Analysis, Product Management, Consulting Frameworks
- **Technical Hand:** Data Science, Machine Learning, Neural Networks, Statistics, Database Management(SQL), Data Analytics, Object Oriented Programming(Intermediate)

Work Experience

DigIT-Hack

May 2025 – July 2025

Data Science Intern

- Built ML models for customer segmentation and appointment forecasting to support DigIT-Hack's AI-driven CRM.
- Applied supervised and unsupervised learning for personalization and demand forecasting.
- Integrated ML outputs into dashboards, improving decisions on inventory, staffing, and client management.

Projects

Prioritized Insider Trading Insights

Aug 2025

Product Blueprint

[\[Link\]](#)

- Built an ML-driven Insider Trading Tracker using LightGBM + LSTM, applying noise filtering, financial ratio features, and Bayesian tuning to generate high-confidence market signals.
- Developed end-to-end data pipeline / CI/CD workflow (scraping, ETL, PostgreSQL, Airflow, Docker) powering alerts, forecasts, and dashboards for retail investors.

NIFTY 50 Stock Price Prediction

July 2025

Python, Statsmodels, Time-Series Modeling, RNN, LSTM

[\[Github\]](#)

- Applied ARIMA/ARIMAX, Autoregressors, and deep learning models (LSTM, RNN) on 20 years of Nifty-50 stock data, conducting trend, seasonality, and stationarity analysis to forecast VWAP with high accuracy (RMSE 0.046).
- Engineered exogenous features, automated feature pipelines, and built scalable Python/Keras/Statsmodels workflows for stock price prediction, showcasing strong data fluency, financial modeling rigor, and tool-building for investment insights.

Credit Risk Analytics Model

July 2025

Credit scoring systems, Scorecard Logic, Feature Selection Techniques etc.

[\[Github\]](#)

- Built an interpretable logistic regression model for predicting loan default using key financial variables (e.g., income, debt-to-income ratio, employment tenure), supporting data-driven credit risk assessment.
- Performed EDA, binning, and WoE-based feature engineering; evaluated model with ROC-AUC, Precision, Recall, and Confusion Matrix, and built a credit scorecard for real-world lending.

Achievements & Certifications

- **Nation Building Case Study Competition:** Represented East Zone at the National Level, ranked in the Top 1% among 60,000+ teams. [\[Case Study\]](#)
- **Catalysis'T** : Led a market entry, strategy and growth blueprint for a EV charging start-up company. [\[Case Study\]](#)
- **Time Series Analysis (CAC, IIT Guwahati):** ARIMA, ARCH, GARCH Models [\[Certificate\]](#)
- **Summer Analytics (CAC, IIT Guwahati):** Statistics, Data Science, ML. SQL, Tableau [\[Certificate\]](#)
- **Winter Consulting (CAC, IIT Guwahati):** Economics, Finance, Consulting Frameworks [\[Certificate\]](#)
- **Product Matters (E-Cell, IIT Guwahati):** Proposed a product development framework to a Cosmetics Start-up PLUM. [\[Link\]](#)

Skills

- **Programming & Data:** Python (Numpy, Pandas, PySpark, Keras, Tensorf), SQL (Intermediate)
- **Analytics Tools:** Excel, Matplotlib, Seaborn, PowerBI, Tableau, MySQL
- **Hobbies:** Geopolitics, Debating, Case-Studies, Politics

Positions of Responsibility

- **Secretary, Film and Music Society:** Elected with the highest votes; led a 3-tier team to organize a 3-day multi-ethnic cultural fest and celebrity night with 7,000+ attendees; strategically managed a 1 Cr budget for events, logistics, and stakeholder coordination.
- **Journalist, Monday Morning:** Reporter for official student media body of NIT Rourkela.