

SAPTARSHI SANYAL

Manager, Durgapur, West Bengal

Linkedin: <https://www.linkedin.com/in/saptarshi-sanyal-98563b47/>

Github: <https://github.com/saptarshi1980>

Mobile: +919531705788

e-mail: saptarshi.edp@gmail.com

CAREER SUMMARY

With expertise in machine learning, deep learning methodologies and Software Architecting, I aspire for a position to discover uncovered possibilities in the Data science arena. With experience in various industries such as Power, Banking I am confident to work on the following aspects:

- Machine learning model building
- Neural Network Model Building
- Natural Language Processing
- SQL
- MLOPS using DVC, MLFLOW, DAGSHUB, AWS Sagemaker.
- Model tuning and deployment
- Modular Coding
- Machine Learning Pipeline

TECHNICAL COMPETENCIES

TECHNICAL SKILL	Expertise	Exposure
Programming	Python, Java, Oracle PL/SQL, JavaScript(MERN)	R
ML	All popular Algorithms of ML and DL	NLP
SQL	Oracle, MySQL	MS SQL
Linux	RedHat and Ubuntu Server	

EDUCATION

Asansol Engineering College (2004), Bachelor Engineering: Information Technology

Indira Gandhi National Open University (2016), MBA (Operations Management)

Bankura Unnayani Institute of Engineering (2022), Masters of Technology: Computer Science & Engineering

PROFESSIONAL EXPERIENCE

19 YEARS

The Durgapur Projects Limited (A Govt of West Bengal Enterprise)

Durgapur/West Bengal

Manager (System) January 2011 – Till date

- Worked on Classification, Regression, Clustering and NLP use cases
- Hands on Experience in Logistic regression, Random forest, Support vector Classifier, CART, GBDT and NLP algorithms
- Good exposure to ML techniques like Neural networks.
- Hands on Experience in tools Python/DVC/MLFLOW/DAGSHUB.
- Modular coding practices with pipelines
- Experience in data preparation including new KPI's to be used for modelling purpose
- Experience in feature engineering/selection for various types of data science problems
- Worked with Variable reduction techniques like PCA, factor analysis
- In depth experience of model fine tuning methodologies like VIF
- Sound understanding of model working methodology and optimization functions
- Experience in dealing with imbalanced class distribution in classification scenario
- Approach document preparation for new projects
- Model approach discussion with business to get their input
- Model building, fine tuning and deployment

SAPTARSHI SANYAL

Manager, Durgapur, West Bengal

Linkedin: <https://www.linkedin.com/in/saptarshi-sanyal-98563b47/>

Github: <https://github.com/saptarshi1980>

Mobile: +919531705788

e-mail: saptarshi.edp@gmail.com

Oriental Bank of Commerce (A Govt of India Enterprise)

New Delhi

Manager (IT) July 2005 – December 2010

- Developed Oracle Based Software using Java/J2EE and PL/SQL
- Extensive knowledge of software development in SCO- UNIX and Linux

Latest Projects handled

1. Demand Forecasting

Development of a machine learning model to predict energy demand for power generation. The goal is to enhance the accuracy of demand forecasts, which will help in optimizing energy generation, preventing blackouts, and avoiding overproduction.

Softwares Used: Scikit Learn, Tensorflow, Pandas, Seaborn, Plotly, DVC, MLFLOW, AWS SAGEMAKER, AWS-S3, Oracle

Language/Script Used: Python, Java, JasperReports

- **ML Models:** Gradient Boosting Machines, and Deep Learning to predict the demand.
- **Inputs:** Historical consumption data, weather conditions, day of the week, public holidays, and seasonality patterns.
- **Goal:** Predict short-term (hourly, daily) and long-term (monthly, yearly) demand to optimize energy distribution.

Business Impact:

- Helped organization to optimize its energy purchasing strategies.
- Reduces costs and minimizes power wastage or shortages.
- Balances load more efficiently across the grid.

2. Predictive Maintenance for Equipment

Unexpected failures of transformers, power lines, and other grid infrastructure lead to costly repairs and downtime.

Softwares Used: Scikit Learn, Tensorflow, Pandas, Seaborn, Plotly, DVC, MLFLOW, AWS SAGEMAKER, AWS-S3

Language/Script Used: Python, Java, JasperReports

ML Solution:

- **ML Models:** Predictive models such as Random Forest, Gradient Boosting Machines, and Deep Learning can predict the likelihood of equipment failure.
- **Inputs:** Data from sensors on transformers, historical maintenance records, environmental factors (e.g., temperature, humidity), and operational parameters (e.g., voltage, current, load).
- **Goal:** Predict when equipment is likely to fail and schedule maintenance proactively.

Business Impact:

- Reduced unplanned downtime and costly repairs.
- Extended the lifespan of critical infrastructure