

DRIPTA SENAPATI

Data Scientist

☎ 8013242756 @ driptasenapati97@gmail.com 🔗 <https://github.com/DriptaSenapati> 📍 Kolkata



EXPERIENCE

Risk And Compliance Analytics

HSBC 📅 2022 - Present 📍 Kolkata, India

Senior Analyst

- Designed and tuned risk-based AML thresholds across 10+ countries, reducing false positives and improving fraud alert efficiency.
- Built and validated AML statistical models (XGBoost, KNN, clustering) to classify high-risk vs. low-risk customers.
- Conducted transaction monitoring analytics, fraud pattern analysis, and segmentation using PCA, K-Means, and non-parametric statistical tests.
- Performed model impact analysis and collaborated with compliance teams to ensure alignment with global AML frameworks.
- Developed scalable fraud rules engines and optimized alert systems, leading to improved early-stage detection of fraudulent activities.
- Playing a leading role in one of the HSBC in house AML product where I am responsible for project management, project planning and future development.

Data Science (Healthcare Analytics)

WNS Global Services 📅 2021 - 2022 📍 Gurgaon, India

Senior Associate

- Used NLP techniques to extract key biomedical information from research abstracts, improving data tagging efficiency.
- Created a Python module for dynamic table extraction from PDFs and automated multi-format outputs for client delivery.
- Conducted statistical analysis of structured and unstructured biomedical data using R and Python.
- Built an OpenCV-based module to detect medicine ingredients from packaging images.
- Designed and deployed REST APIs for analytics workflows, scaling performance.

Data Scientist

Objectsol Technologies Pvt. Ltd. 📅 2020 - 2021 📍 Kolkata, India

Data Scientist

- Developed backend statistical algorithms and ML models for software applications.
- Built a crop recommendation model leveraging soil parameters (pH, Nitrogen, Potassium) and weather features (temperature, humidity).
- Implemented an object detection system using YOLOv3 + OpenCV for real-time applications.

EDUCATION

M.Sc. in Statistics (Specialization: Multivariate Analysis)

University of Calcutta 📅 2018 - 2020

B.Sc. in Statistics

University of Calcutta 📅 2015 - 2018

LANGUAGES

English Proficient ●●●●● Bengali Native ●●●●●
Hindi Intermediate ●●●●●

STRENGTHS

- ★ Decision Making
- ★ Working Under Pressure
- ★ Leadership

SUMMARY

Data Scientist with 4+ years of experience in analytics domain. Has strong foundation in **statistics with analytical and programming mindset**. Proficient in developing robust solutions for business cases. Seeking opportunities to use my **expertise in machine learning and technical tools** to drive business value in global organizations

SKILLS

Financial Crime / AML (Domain Knowledge)

Risk-based modeling, Threshold tuning, Fraud detection, Transaction monitoring, Customer segmentation,

Programming & Tools

Python, R, SQL (Hive, Oracle), Flask, Shell scripting, Pandas, NumPy, Matplotlib, Seaborn, BigQuery, NoSQL DB, MS Excel

Machine Learning & Modeling

Linear Regression, Classification Models, XGBoost, KNN, K-means, Decision Trees, PCA, Clustering Techniques, Feature engineering and selection, ANN, RNN, LSTM, Model validation, SciPy, Deep Learning

Natural Language Processing

NER, Sentiment Analysis, Text Processing, Seq2Seq modelling for Text Generation

Deployment & Cloud

API development (Flask, NodeJS), GCP, AWS

ACHIEVEMENTS

- ✓ **Epidemiological model**
Worked on a **Covid-19** based project that applies **SEIR epidemiological model** to, that shows whether the lockdown in India is effective or not. Trying to fit **LSTM model** to predict the future pattern of **Reproduction rate**.
- ✓ **Chatbot Using Seq2Seq Model**
Built a simple **Chatbot** using model **LSTM RNN(Seq2Seq)**. For now, it can chat like humans with meaningful sentences, and it can also tell weather of any place. Although it is a very basic one. (GitHub Link: <https://github.com/DriptaSenapati/ChatBot>)
- ✓ **Python Package**
Created a **python package** on Covid-19 that can retrieve all the numerical data related to the COVID-19 spread in India. (PyPi Link: <https://pypi.org/project/covdata/>).
- ✓ **Statistics Chegg Expert**
Worked part-time for 2 years as **Chegg Expert** by solving the statistical problems