Sourav Ghosh

Assistant Manager @ GENPACT

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Summary

Credit Risk Analyst experienced in model development and validation across portfolios. Skilled in Python and SAS, with expertise in statistical modeling and data engineering. M.Tech from ISI Kolkata with banking risk exposure.

Education

Indian Statistical Institute, Kolkata **2021 – 2023**
MTech in Cryptology & Security *76%*

Presidency University, Kolkata **2019 – 2021**
MSc in Mathematics *CGPA:8.9/10*

Presidency University, Kolkata **2016 – 2019**
BSc Mathematics (Honours) *CGPA:7.45/10*

Coursework

- Data Structures
- Algorithms Analysis
- Database Management
- Machine Learning
- Probabilistic Theory
- Statistical Inference
- Cryptology
- Regression Analysis

Experience

Assistant Manager **March 2025 - Present**
GENPACT - Credit Risk Model Validation *Bangalore*

- Validated a **Tier 3 credit risk model** for early trigger and loan decisioning across **Agriculture, CRE (Commercial Real Estate), and C&I (Commercial & Industrial) portfolios** using logistic regression; performed independent validation on Dataiku with PySpark/Python.
- Involved in validation of credit risk account management models, including **Personal Line of Credit (PLOC)** and **Credit Card behavioural scorecard models**, leveraging SAS Enterprise Guide and Miner.
- Contributed to **annual model reviews** by assessing performance, evaluating trigger thresholds, and supporting issue reclassification exercises.
- Consistently conducted **challenger model development, conceptual soundness checks, performance monitoring, and outcomes analysis**, with findings documented in comprehensive validation reports in line with **SR 11-7** .

Analyst - Decision Science **July 2023 – February 2025**
HSBC - Wholesale Credit Risk Model Development *Kolkata*

- Built reference datasets in SAS for model development, resolving data issues through collaboration to ensure data integrity.
- Developed Python code for various stages of the risk model development life cycle for **NBFI IRB PD models**, including variable creation, transformation, outlier treatment, missing value imputation, and shortlisted financial and qualitative variables using single-factor and multi-factor analyses; applied linear regression and explored alternatives such as random forest and decision tree.

Analyst - Decision Science Intern **Jan 2023 – July 2023**
HSBC - Wholesale Credit Risk Model Development *Bangalore*

- Supported the migration of **Internal Ratings-Based (IRB) PD models** from MATLAB/SAS to Python, including **deployment and enhancement of packages and architectures**, reducing software costs and upgrading to modern technology.

Technical Skills

Python | PySpark | SAS | MySQL | GitHub | Excel | C | Linux | LaTeX

Leadership / Extracurricular

Class Representative at ISI Kolkata; Placement Representative & Class Representative at Presidency University