

Archit Gupta

Assistant Manager (Citi)

Data Scientist with 6 years of experience in predictive modeling, machine learning, and advanced analytics. Proficient in building, validating, and deploying data-driven models to solve complex business problems and drive strategic decision-making. Experienced in using SAS, Python, R, SQL, and machine learning libraries such as Scikit-learn with a strong foundation in risk management. Adept at data wrangling, feature engineering, and model optimization, focusing on delivering actionable insights across various industries.

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Delhi -NCR

WORK EXPERIENCE

Citi Corp

Assistant Manager, Risk Modelling Unit

08/2022 - Present

Achievements/Tasks

- Developed and implemented advanced predictive models using SAS and Python for CCAR/CECL frameworks for retail portfolios focusing on forecasting and risk assessment ensuring regulatory compliance.
- Leveraged ML algorithms like logistic regression and Xgboost to predict the Probability of Default (PD) and Exposure at default (EAD) improving risk management strategies.
- Conducted rigorous model validation using cross-validation and performance metrics (eg. ROC AUC ,Gini) to ensure model robustness.
- Collaborated closely with cross-functional and global teams to gather necessary data inputs and ensure alignment with project objectives and regulatory requirements.

KPMG India

Consultant, FRM

03/2021 - 08/2022

Achievements/Tasks

- Developed and Implemented a predictive model to detect wash trading activities ,using machine learning techniques to identify suspicious trading patterns which indicates market manipulation.
- Utilized anomaly detection algorithms - One-class SVM to spot irregularities in trading behavior improving accuracy of fraud detection.
- Conducted backtesting of model performance against historical data to ascertain the predictive capability and accuracy of the model.

Cognizant Technology Solutions

Associate Data Scientist

09/2018 - 03/2021

Designation - Associate-Projects

Achievements/Tasks

- Project 1 (Credit Risk Modelling):** Developed credit risk scorecard model using logistic regression in Python to assess borrower creditworthiness. This included feature engineering, and course classing using techniques such as Weight of Evidence (WoE), Information value and Variance Inflation factor (VIF).
- Conducted data validation using Gini, KS test, and ROC AUC score to analyze the discriminatory power of the model.
- Project 2 (Ticket Volume Prediction):** Developed an ML predictive model in Python to predict the volume of tickets arising due to change management. Data Extraction using SQL and model development using Random Forest and XGboost.
- Data Validation using various metrics such as Adjusted R square, RMSE, MAE, etc to check accuracy and goodness of fit of the models.
- Project 3 (Demand Forecasting) :** Developed time series forecasting model using ARIMA to forecast the demand of associates for next quarter.
- Checked for stationarity using Dickey Fuller test. Plotted ACF and PACF to check for the parameters. Used RMSE to check accuracy for the training period.

SKILLS

Statistical Modeling

PD Modelling

Credit Risk Modelling

Data Science

Excel

Predictive Modelling

Data Mining

Advanced Analytics

NLP

Machine Learning

Finance

Python

R

SQL

SAS

Finance

Logistic Regression

EDUCATION

MA Financial Economics

Madras School of Economics

10/2016 - 05/2018

BA (Hons.) Economics

University of Delhi

06/2012 - 06/2015

CERTIFICATES

Introduction to Natural Language Processing
(07/2016)

(Udemy)

Spark and Python for Big Data with PySpark
(09/2020)

(Udemy)