Kartik Mohan

Senior Associate (PwC)

Kartik is a credit risk professional with 3+ years of experience in developing and validating risk models, including PD, LGD, and EAD frameworks. Skilled in Python and R, with proven expertise in regulatory-aligned model development, quantitative analysis, and portfolio risk assessment.

kartikmohan2410@gmail.com

9811383772

New Delhi

SKILLS

Python | R | Credit Risk | IFRS9 | SQL | Market risk | Econometrics | BASEL | Regression - Linear / Logistic | Model Validation | Model Development

LANGUAGES

English
Full Professional Proficiency

Hindi
Full Professional Proficiency

INTERESTS

Reading | Research | Learning new skills

WORK EXPERIENCE

PricewaterhouseCoopers (PwC)

Senior Associate (Apr 2023- Present)

Credit Risk Modelling Projects

- **Model Development:** Designed and implemented a credit risk model using logistic regression in Python to estimate Probability of Default (**PD**) for a US consumer portfolio.
- Executed end-to-end model development by implementing data cleaning, EDA, and feature selection techniques **Weight Of Evidence (WoE), Information Value (IV)** and correlation matrix for the selection of significant variables. Conducted model validation using confusion matrix, **KS statistic, Gini coefficient, ROC curve**, and AUC to ensure model performance.
- To assess the model performance, carried out validation techniques such as **confusion matrix**, **KS test, Gini coefficient, ROC** and Area Under the Curve.
- **Model Remediation:** Worked on model remediation and validation for **PD, LGD, EAD** and **ECL** in accordance with the **IFRS9** Standards in Python. Worked on review of model development documentation, testing and validation report.
- **Model Enhancement:** Applied overlays to **PD** and **LGD** models for **commercial real estate loans**, incorporating portfolio-specific risk factors. Drafted model risk documentation detailing methodology, rationale, and impact assessment in line with governance standards.

PricewaterhouseCoopers (PwC)

Associate (Apr 2022- Apr 2023)

Market Risk modelling projects

- **Model Enhancement:** Developed a **backfilling model** for inflation-linked interest rate curves to reconstruct the historical government time series, using techniques like cubic spline interpolation and **multiple linear regression** in Python.
- **Model Development:** Developed **Risk not in VaR (RNIV)** model for Bond Swap spread Z spreads (BSS ZS) to compute additional RNIV capital required for BSSZS using excel based automated EUDA.
- Performed model validation of market risk RNIV models. Worked on review of model development documentation, assumptions and limitations, assumptions testing, back-testing, benchmarking and drafting of findings and recommendations in Model validation report (MVR).
- ***BUILDING A ROBUST MODEL RISK MANAGEMENT FRAMEWORK*:** Co-authored a published PwC Thought leadership article highlighting key guiding regulations/challenges (TRIM, FRTB,SR 11-7) relevant to the model risk management (MRM) domain.

Institute for Financial Management and Research

PhD Economics candidate, IFMR GSB (Jun 2019- Feb 2022)

- ***Model development:*** Conducted market **volatility analysis** using **time series forecasting models** (GARCH family models) on macroeconomic indicators across developed and developing economies. Performed data cleaning and preparation, applying **stationarity test** to model for characteristics like i**nformation asymmetry** and **volatility clustering**.

EDUCATION

M.A. Economics

Madras School of Economics (Applied Quantitative Finance)

2016 - 2018

B.A. (H) Economics

Rajdhani College, University of Delhi

2012 - 2016