# KAMESH DUBEY

Mumbai, India

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## PROFESSIONAL SUMMARY

Quantitative Analyst with experience in credit risk model validation. Strong foundation in probability, statistics, and time-series modeling with hands-on exposure to PD, VaR, and regulatory model validation.

## TECHNICAL SKILLS

**Technical Skills:** Python (NumPy, Pandas, statsmodels, Scikit-learn, PyTorch), R, Excel, SQL and Git
**Quantitative Skills:** Logistic Regression, Generalized Linear Models, Inference and Hypothesis Testing
**Key Coursework:** Probability, Statistics, Machine Learning, Time Series Analysis, Calculus, Linear Algebra

## WORK EXPERIENCE

**Associate Consultant – Financial Risk Management**                                            *Jun 2025 – Present*
*KPMG Assurance and Consulting Services LLP*                                                        *Mumbai, India*

- Validated **PD scorecards** built using **Logistic Regression**, performing discrimination (**Gini, KS**), calibration (**HL test**), and stability analysis (**PSI, CSI**) in accordance with regulatory guidelines.
- Conducted independent validation of **Value-at-Risk (VaR)** and **Fixed-Income** models through **back-testing and stress testing**, evaluating capital and risk implications.

**Data Science Intern**                                                                                        *Apr–May '25*
*Bluepond AI*                                                                                                  *Chennai, IN*

*SOV Chatbot for Underwriters*

- Built a RAG chatbot with tool-calling capabilities to generate visualizations and insights from the Excel files
- Designed an **AI-driven data pipeline** to extract, clean, and standardize Statement-of-Value (SoV) Excel files
- Fine-tuned a **BERT (99.5% F1)** classifier on a custom dataset to filter non-insurance queries before API calls

*Brokers Co-Pilot*

- Built an **extraction tool** that extracted **30+** key fields from insurance documents, cutting review time by **80%**
- Revamped the document reader pipeline to enhance text parsing precision and improve extraction accuracy

## KEY PROJECTS

**Oil-Well Pump Failure Prediction | MSc. Project**                                                    *Jan–Apr '24*
*Guide – Sanjeev V Sabnis, Department of Mathematics, Bombay*
*Co-Guide – Prof. Sujit K Ghosh, Department of Statistics, North Carolina State University*

- Conducted a comparative analysis of **Logistic** Regression and **Decision Tree** on panel data with rare events
- Optimized Decision Tree by tuning hyperparameters on feature set, achieving **83%** cross-validated F1-score

**Time Series Forecasting | Course Project**                                                          *Jan–Apr '24*
*Guide – Sanjeev V Sabnis, Department of Mathematics, IIT Bombay*

- Conducted thorough **statistical analysis** of daily sales data and applied **ADF test** to assess the stationarity
- Performed residual analysis and diagnostic checking of ARIMA model and forecasted 6 months future sales

**Bank Customers Segmentation | Course Project** | GitHub                                            *Aug–Nov '23*
*Guide – Prof. Siuli Mukhopadhyay, Department of Mathematics, IIT Bombay*

- Enhanced interpretability by leveraging **PCA** and **factor analysis** to uncover latent variable in the dataset
- Segmented data using **K-Means** clustering and evaluated clusters via **Silhouette** Score and Elbow Method

## EDUCATION

**Indian Institute of Technology, BOMBAY**                                                            **Aug'22 - Dec'24**
*M.Sc. Applied Statistics and Informatics*                                                             *Mumbai, IN*

**Gurukula Kangri University**                                                                         **Aug'18 - Jul'21**
*B.Sc. Mathematics and Computing*                                                                      *Haridwar, IN*

## SCHOLASTIC ACHIEVEMENTS

- Secured **AIR-50** in Mathematical Statistics, IITJAM 2022 among 2,912 candidates organized by IITR        '22
- Achieved a remarkable **Department Rank 3** out of 120 BSc. Students at Gurukul Kangri University          '21