ABHISHEK GUPTA
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Professional Synopsis

- An astute performer with 9+ years of experience in Quantitative Modelling and Data Science having a specialty in development and deployment of machine learning, deep learning models in Finance.
- Advanced knowledge of **Predictive analytics, Stream analytics, Distributed storage, Data virtualization, Data Analytics and Reporting.**
- Worked with broad range of financial products – **Equities, Derivatives (OTC and Exchange Traded), Fixed Income** and modelling same using Python Libraries.
- An effective communicator with excellent relationship building & interpersonal skills. Strong analytical, problem solving & organizational abilities having experience of working in global teams.
- Good finance knowledge coupled with extensive experience in designing and modelling the analytical models
- FLIP certified in Financial and Capital Markets with All India Rank of 17

Academic Qualifications

MBA, Finance (2012 - 2014) with CAT Score of 99.4 percentile
CGPA: 8.1 (on a 10-point scale)
Subjects: Machine Learning, Big Data, Deep Learning, Econometrics, Statistics, Python, Algorithms, Data Science, CART techniques, Neural Networks, Linear Algebra, Mathematical Programming, Pricing Models for Fixed Income and Derivative instruments
University: **Indian Institute of Technology, Delhi**

Bachelor of Technology (2006 - 2010)
Percentage: 75.4% (on a 10-point scale)
University: Guru Gobind Singh Indraprastha University, Delhi

Schooling with Bio and Maths
Xth: 86.6%, XIIth: 74.2%
HPS Rohini, Delhi, CBSE

Technical Skills

- **Statistical Techniques**: Time Series Analysis, Causal Inference, Predictive Analytics, Machine Learning, Monte Carlo Simulation, Distributions, Deep Learning, Reinforcement Learning
- **Python (Numpy,Scipy,scikit-learn,pandas,statsmodels,QuantLib,matplotlib)**: Advance
- **SAS EG:** Intermediate
- **Advanced Excel:** Advance
- **SQL:** Intermediate
- **Spotfire, Power BI, VBA:** Advance
- **DevOps (Git, BitBucket, TeamCity, JIRA):** Advance

Professional Experience

Tenure	Company Name	Designation
Aug 2019 – Present	**Independent Consultant**	Independent Consultant
Jan 2018 – Aug 2019	**CRISIL Research & Analytics** (Wroclaw, Poland)	Senior Research Analyst
April 2014 – Jan 2018	**The Royal Bank of Scotland** (Gurgaon)	Senior Analyst
July 2010 –July 2012	**Infosys Technologies Ltd** (Pune)	Software Engineer (C++, Perl)

Company: Independent Consultant
Domain: Data Science and Quantitative Research of Data
My Role:

- ✓ Trained multiple clients in development and deployment of machine learning, deep learning and reinforcement models for prediction of Time series
- ✓ Developed fully automated algorithmic systems for end-to-end automation of Data Preprocessing, Annotation, Data analysis and reporting.
- ✓ Worked across a variety of financial products like equities, derivatives, currencies and cryptocurrencies
- ✓ Directly advised the client on an array of product related developments and issues.

Company: CRISIL Global Research & Analytics, Poland
Title: Strategic Expected Positive Exposure (SEPE) for Internal Model Method (IMM)
Domain: Counterparty Credit Risk (CCR)
My Role:

- ✓ Advised client on Machine Learning Model implementation and validation activities for change from historical valuation to forward-looking models which resulted in multi-billion-dollar savings on client's end.
- ✓ Quantitative Analysis of Financial Models for Derivative (FX Forwards, Interest Rate Swaps etc.) Exposures using Python and SQL.
- ✓ Worked on models for calculation of Credit Valuation Adjustments (CVA) involving PD, LGD and exposure models.
- ✓ Verification of Data and Model Integrity using Statistical Techniques and plots.
- ✓ Implementation of Monte Carlo simulation for calculation of exposures and development of associated simulation tools using Machine learning techniques.

Company: The Royal Bank of Scotland
Title: Credit Risk Quantitative Analysis on BASEL II measures- Probability of Default, Loss Given Default
Domain: Wholesale Credit Risk
Scope: All financial products extended to the wholesale clients of bank.
My Role:

- ✓ Credit Risk modelling and statistical validation of models for RWA calculation
- ✓ Documentation Review, Data Quality verification, Model fit assessments and visualizations.
- ✓ Supporting the calculation of RWA based on the risk measures
- ✓ Financial Risk modelling with SAS, Excel and VBA
- ✓ Statistical analysis using Python
