MD MOSTAFA KAMAL

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LinkedIn Profile Project Portfolio Research Portfolio

PROFILE SUMMARY

Quantitative Risk Analyst with 3+ years of experience at major financial institutions, specializing in risk model development and validation. Proven expertise in applying Python for capital planning (Basel III/IV), stress testing, and derivatives risk management, consistently enhancing model accuracy and automating complex workflows.

EDUCATION

WorldQuant University, USA (Online) — **Sep 2023 – Current**
Master of Science (M.Sc.) in Financial Engineering — Current GPA: 83/100

Goethe University, Germany — **Sep 2021 – Sep 2024**
Master of Science (M.Sc.) in Money and Finance — Overall GPA: 1.8 (Good)

Northwestern Polytechnical University, China — **Sep 2018 – Mar 2021**
Master of Management Science (MMS) — Overall GPA: 90.05/100.00
Business Administration — Class Rank – 1st out of 28 students

Jahangirnagar University, Bangladesh — **Jan 2011 – Dec 2014**
Bachelor of Business Administration (BBA) — Overall GPA: 3.84/4.00
Finance & Banking — Class Rank – 4th out of 68 students

PROFESSIONAL EXPERIENCE

EUREX Clearing AG — **Aug 2024 – Current**
Analyst | Clearing Data Control — *Frankfurt, Germany*

- Maintaining accurate exposures, margins, and clearing eligibility, boosting data reliability by 15%.
- Ensuring high-quality ETD, OTC, and cash-market data for risk assessment, cutting data breaks by 20%.
- Monitoring credit, market, and operational risk drivers across clearing workflows and exposure feeds.
- Validating valuations, pricing inputs, and volatility measures for cleared instruments with 98% accuracy.
- Supporting margin, stress-testing, and exposure processes by ensuring upstream data completeness.
- Reviewing model inputs for IM (VaR, Prisma), scenario generation, and sensitivity-based margin components.
- Automating risk-relevant pipelines and valuation checks using Python and SQL, cutting manual work by 30%.
- Partnering with model teams to improve data lineage, model performance, and risk methodology alignment.

Deutsche Börse AG — **Jan 2023 – Aug 2024**
Working Student | Capital Planning Unit — *Frankfurt, Germany*

- Modelled regulatory and economic capital, RWAs, and stress scenarios for 6+ DBG entities using Python.
- Evaluated CRR/CRD, Basel III/IV and macro impacts on capital buffers and solvency metrics.
- Built Python-based risk modeling tools for exposure estimation, Monte Carlo simulation, and scenario analysis.
- Automated reporting workflows, reducing monitoring time by 30%.
- Modelled credit and market risk to assess the capital impact of M&A transactions.

Index Intelligence GmbH — **Sep 2022 – Jan 2023**
Working Student & Internship | Fixed Income Index Analyst — *Frankfurt, Germany*

- Processed and validated government bond auctions, yield curves, and duration metrics for index accuracy.
- Modeled yield curves via bootstrapping, PCA, and simulation to improve index construction.
- Performed market risk sensitivity checks including DV01 and convexity during rebalancing.
- Built and optimized Python pricing models and backtesting frameworks to stabilize tracking error.
- Implemented data validation procedures reducing yield curve anomalies.

Dextro Group GmbH **Mar 2022 – Aug 2022**
Working Student | Financial Analyst *Darmstadt, Germany*

- Performed detailed creditworthiness assessments and ESG risk modeling for structured products.
- Developed financial models to quantify operational, market, and ESG risks, guiding investment decisions.
- Managed a €170K ESA-funded project, including risk modeling, budgeting, and exposure assessment.
- Conducted scenario analysis, stress testing, and portfolio risk reporting for informed decision-making.

Union Capital Limited **Oct 2016 – Aug 2018**
Analyst | Corporate Finance Department *Dhaka, Bangladesh*

- Conducted credit risk analysis on 20+ corporate clients, modeling PD, LGD, EAD, and internal credit scores.
- Evaluated borrower financials, cash flows, collateral, and sector risks for credit decisions exceeding €10M.
- Applied credit risk models and stress-testing to quantify potential losses under adverse scenarios.
- Reduced NPL exposures, recovering 16% of delinquent loans within 3 quarters via structured credit strategies.
- Monitored market risk exposures and assessed interest rate, FX, and liquidity risks affecting credit portfolios.
- Prepared risk memos, scenario analysis, and reports to support risk-adjusted decision-making.

SKILLS & EXPERTISE

- **Technical Skills :** Python (*Pandas, NumPy, Scikit-learn, SciPy, Statsmodels, Matplotlib, QuantLib*), OOP, R, SQL, MATLAB, STATA, SPSS, Power BI, MS Excel, and VBA
- **Financial Platforms :** Bloomberg, Refinitiv Eikon, WRDS Database
- **Languages :** Bengali (Native), English (Fluent), German (Basic), Chinese (Basic)

PROJECTS

- **VaR Backtesting Engine:** Built backtesting engine multiple VaR models with Kupiec & Christoffersen tests.
- **Credit Risk Models:** Developed PD/LGD/EAD models using structural, reduced-form and IRB models.
- **Yield Curve Modeling:** Bootstrapped curves, ran PCA on curve shifts, computed DV01 & convexity.
- **Derivative Pricing Models:** Implemented Black–Scholes, Heston, SABR, and local volatility models.

CERTIFICATES & COURSES

- **Financial Risk Manager (FRM)** –GARP | *Part I Candidate (May 15, 2026)*
- **Investment Foundations Certificate** –CFA Institute | *Issued 2022*
- **Audited Coursework :** ◦ Mathematical Methods for Quantitative Finance–MIT MicroMaster (2023); ◦ Derivatives Markets: Advanced Modeling and Strategies–MIT MicroMaster (2023)
- **Data Science :** ◦ Applied Data Science Lab –WorldQuant University (Ongoing); ◦ Data Science Job Simulation –BCG (2024); ◦ Data Science Specialization with R–DataCamp (2020)

RESEARCH & PUBLICATION

- **Md Mostafa Kamal**, Eduardo Roca, Bin Li, Chen Lin, Rajibur Reza, (2025). Price Contagion and Risk Spillover in the Global Commodities Market: COVID-19 Pandemic vs. Global Financial Crisis. Published in *Resources Policy*.
- **Md Mostafa Kamal**, (2024). Empirical Testing of Value-at-Risk (VaR) Models. *Graduate Thesis for M.Sc. in Money and Finance – Supervised by Professor Holger Kraft*.

AWARDS & SCHOLARSHIPS

- Awarded **Deutschlandstipendium** for studying master's at Goethe University in **Germany, 2021-2022**.
- Awarded **Chinese Government Scholarship** for studying Master Degree at NPU in **China, 2018**.
- Secured **Top Achiever Award** at Jahangirnagar University for achieving top scores **from 2011 to 2014**.