

Sukriti Kumar

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY
Master of Engineering in Financial Engineering, GPA: N/A

Expected December 2022

Birla Institute of Technology and Science, Pilani, India
M.Sc. (Tech.) in Finance & B.E. (Hons.) in Civil Engineering, **Top 1%, GPA: 8.15/10**

July 2017

Selected Coursework: Financial Engineering, Derivatives and Risk Management, Learning with Big Messy data, Monte Carlo Simulation, Financial Engineering with Stochastic Calculus, Operation Research for Engineers, Statistics, Econometric Method

SKILLS

Technical: Python, Numpy, Pandas, R, Stata, SQL, Bloomberg, VBA/Excel

EXPERIENCE

Quantitative Risk Modeler – Stress Testing, *Credit Suisse*, London, UK **Oct. 2018 to Aug. 2021**

- Part of the first team to statically calibrate shocks for the asset classes (Equity, FX, Commodity, Credit, Interest rates) for limit monitoring; analyzed 20+ years of time series for credit risk management purposes in R.
- Monitored COVID-19 and related crises and calibrated scenarios as quick responses (incorporating negative prices of WTI, equity volatility upsurge, spread widening, etc.)
- Designed first of its kind equity shocks to flag market-neutral hedge fund portfolios using sector beta approach.
- Outlined shocks for non-equity ETFs, Nondeliverable Forward Currencies, cryptocurrencies, wrong way risk for capital calculation, as well as implied volatility shocks for bespoke equity derivatives and swap spreads.
- Performed scenario pre-trade pricing of live trades, including derivatives and exotics for the traders.

Quantitative Analysis & Technology – Stress Testing, *Credit Suisse*, Mumbai, IN **June 2017 to Oct. 2018**

- Calculated the scenario exposure of various financial products used for capital buffer calculations for ICAAP (Internal Capital Adequacy & Assessment Process) and LPA (Loss Potential Analysis) and for other regulatory purposes.
- Analyzed and quantified the risks arising due to various derivative positions under market changes.
- Involved in implementing and modeling the exposure in case of Central Counterparty Clearing House defaults.

Credit Risk Management Intern, *Credit Suisse*, Mumbai, IN **July 2016 to June 2017**

- Assisted in developing a successful loss given default model under the Basel II capital adequacy norms.
- Performed scenario analysis, stress testing and sensitivity analysis on the exposure of counterparties.

PUBLICATIONS

“Risks in Banks and Its Impact on Volatility of Market Returns: An Empirical Approach,” by Dr. Prakash Singh and Sukriti Kumar, *International Journal of Indian Culture and Business Management*, Vol. 17, No. 2, 2018.

PROJECTS

Predicting Equity Index Volatility Using Machine Learning, *Cornell University*, Ithaca, NY **Aug. 2021 to Dec. 2021**

- Utilized linear and nonlinear machine learning techniques using macro-economic variables to predict the realized volatility of the stock market and the predictions were better than the GARCH model.

LEADERSHIP EXPERIENCE

Director of Publicity, *Project H.A.N.C.(Hustle. Agree. Negotiate. Confer)* at BITS Pilani, Pilani, IN **Aug. 2014 to May 2015**

- Led a 5 member team to achieve nationwide participation for the first-ever business event of its kind at the undergrad level.
- Designed posters for social media marketing to increase the participation in the event.

ACTIVITIES/INTERESTS & CERTIFICATES

Senior Diploma in classical Kathak dance form; photography enthusiast

Certificate: CFA Level II Candidate