FDUCATION

IIT KANPUR

BS-MS IN ECONOMIC SCIENCES Oct 2020 | Kanpur, India PG CPI: 9.5 / 10.0 UG CPI: 8.5 / 10.0 (Distinction)

S.D. VIDYA MANDIR. PANIPAT

Grad. May 2015 Panipat, India Senior Secondary (CBSE): 95.4% Secondary (CBSE): 10/10

TECHNICAL SKILLS

Programming Languages & Tools: C++ • Python • R • MATLAB • STATA Data Query:

SQL • PySpark (Big Data) • HIVE

Web Scraping Projects:

- Reports for all Indian Factories
- Live Football Betting Data

Contribution to R Packages: blotter • obmodeling

Database Proficiency:

Bloomberg • CMIE (ProwessIQ) • CEIC

CERTIFICATIONS QUALIFIED CFA LEVEL 1

COURSEWORK

GRADUATE

Probability & Stochastic for Finance (A*) Foundation of Finance Financial Econometric Machine Learning

UNDERGRADUATE

Soft Skills & Personality Development (A*) UNDERGRADUATE PROJECTS **Applied Stochastic Process**

Econometric I & II Bayesian Econometric Financial Engineering Applied Probability & Statistics Mathematical Economics Microeconomics I & II Macroeconomics I & II Linear Algebra

EXTRA CURRICUI AR

- TA for Foundation of Finance course to a visually impaired student
- Part of Student Placements' Office
- received AUD250 for the prototype
- 1st in Case Study Challenge, Decrypt

CORPORATE INVOLVEMENTS

TOPCODER: FINANCIAL DATA FORECASTING

- Won 3 international competitions & one of the two participants selected worldwide to work for one of the UK's biggest Telecom Company
- Iteratively improvising the existing models and developing new models by employing Statistical Analysis, Outlier Treatment and ensembling Time Series & Deep Learning models to create robust forecasts and avoiding bias developing automatic hyperparameter selection methods

CREDIT SUISSE | Equity Analyst, Prime Services

• Part of Delta One team, responsible for replicating index performance for hedge funds, managing corresponding risk & PnL

ACCENTURE DIGITAL | Business Analytics Intern

- Worked on real client project employing Big Data (10,000,000 X 25,000 entries) & employed various statistical & Machine Learning based Algorithms (VSURF, XgBoost) using PySpark, R
- Developed an algorithm to match 116M & 56M rows 70 attributes using HIVE with 300% increase in match rates

- **WORLDQUANT LLC** | Part-Time Research Consultant Secured Country Rank 4 & Global Rank 15 in consultant only competition for June'19 based on alpha(trading strategy) quality
 - Combined financial concepts like Black Scholes Pricing, Fundamental & Technical Analysis to create 100+ viable trading strategies

MASTERS' PROJECT

CORPORATE PREDICTION MARKETS: DESIGNING AN INFORMATION AGGREGATION MECHANISM

MENTOR: PROF BIKRAMADITYA DATTA

PRESENTATION

- Proposed Corporation Prediction Market as Information Aggregation Mechanism for institutional setup & designed the same for IIT Kanpur considering aggregation media, incentive structure, etc
- Analyzed probabilistic & non-probabilistic market design, convergence of measures to true probability and created metrics for picking the right method as per the market requirements

PRICE DISCOVERY IN INDIAN FOREX MARKET (USD-INR)

MENTOR: PROF WASIM AHMAD

POSTER

- Employed Hasbrouck Information Share Model to determine the information Share of USD-INR Futures & Spot market
- Verified the dominance of Futures over Spot markets with range of 73.4% - 92.5% and 7.5% - 26.6% respectively using R

SOLAR RADIATION OVER INDIA: DYNAMIC PANEL MODEL

MENTOR: PROF SOMESH MATHUR

TERM PAPER

- Predicted daily DHI in first of its kind study at every location in India on the basis of geographical & daily weather data from NASA
- Experimented with various Dynamic Panel Models & opted Arellano Bover estimates explaining 93% variation using R & STATA

• Top 10 in La Trobe University Challenge, ROBUST ESTIMATES OVER SEMIPARAMETRIC ORDINAL MODEL

MENTOR: PROF ARSHAD RAHMAN

PRESENTATION

• Developed understanding of Semiparametric Ordinal Models, Bayesian Quantile Regression, MH & Gibb's Sampling Methods