EDUCATION

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

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COURSEWORK

GRADUATE

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

UNDERGRADUATE

Soft Skills & Personality Development (A*)
Applied Stochastic Process
Econometric I & II
Bayesian Econometric
Financial Engineering
Applied Probability & Statistics

Mathematical Economics
Microeconomics I & II
Macroeconomics I & II

Linear Algebra

EXTRA CURRICULAR

- TA for Foundation of Finance course to a visually impaired student
- Part of Student Placements' Office
- Top 10 in La Trobe University Challenge, received AUD250 for the prototype
- 1st in Case Study Challenge, Decrypt

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

UNDERGRADUATE PROJECTS

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

ROBUST ESTIMATES OVER SEMIPARAMETRIC ORDINAL MODEL

MENTOR: PROF ARSHAD RAHMAN

PRESENTATI

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

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