EDUCATION

IIT KANPUR

BS-MS IN ECONOMIC SCIENCES

Oct 2020 | Kanpur, India PG CPI: 9.5 / 10.0 UG CPI: 8.4 / 10.0

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 • HIVE

Web Scraping Projects:

Reports for all Indian Factories Live Football Betting Data

Contribution to R Packages:

blotter • obmodeling •

PerformanceAnalytics

COURSEWORK

GRADUATE

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

UNDERGRADUATE

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

CERTIFICATIONS

QUALIFIED CFA LEVEL 1 December 2018

December 2018

EXTRA CURRICULAR

Competitions:

- Top 10 in La Trobe University Challenge, received AUD250 for prototype
- 1st in Case Study Challenge, Decrypt

Involvements:

- Core Team Member, ECONS (2015)
- Internship Coordinator, SPO (2017)

MASTERS' PROJECT

CORPORATE PREDICTION MARKETS: DESIGNING AN INFORMATION AGGREGATION MECHANISM

- Proposed Corporation Prediction Market as Information Aggregation Mechanism for institutional setup & designed the same for IIT Kanpur considering aggregation media, incentive, 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

RELEVANT PROJECTS

TOPCODER: CORPORATE 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

ROBUST ESTIMATES OVER SEMIPARAMETRIC ORDINAL MODEL

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

PRICE DISCOVERY IN INDIAN FOREX MARKET (USD-INR)

- 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

- 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

CORPORATE INVOLVEMENTS

CREDIT SUISSE | EQUITY ANALYST, PRIME SERVICES

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

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 to provide insights on
 Tableau
- 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