

CERTIFICATIONS

QUALIFIED CFA LEVEL 1
December 2018

EDUCATION

IIT KANPUR

BS + MS IN ECONOMIC SCIENCES
Expected April 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:
Selenium • BeautifulSoup

Open Source:
Contributed to blotter (R package)

COURSEWORK

* – Ongoing
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

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)

RESEARCH PROJECTS

PREDICTION MARKETS: MARKET DESIGN & APPLICATIONS

MASTERS THESIS, IIT KANPUR DRAFT
Mentor: Prof Bikramaditya Datta Aug 2019 – Present

- Assessing what type of problems can be forecasted, the necessary conditions and market design elements required for efficient use of prediction markets

NON PARAMETRIC INFERENCE FOR TUMOUR EVOLUTION

RESEARCH PROJECT, IIT KANPUR January 2020 – Present
Mentor: Prof Hamim Zafar

- Developing a novel approach to integrate Bulk & Single Cell DNA sequencing data to create clonal tree structure under finite sites assumption

PRICE DISCOVERY IN INDIAN FOREX MARKET (USD-INR)

UNDERGRADUATE PROJECT, IIT KANPUR POSTER
Mentor: Prof Wasim Ahmad Aug 2018 – Dec 2018

- 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

ROBUST ESTIMATES OVER SEMIPARAMETRIC ORDINAL MODEL

UNDERGRADUATE PROJECT, IIT KANPUR PRESENTATION
Mentor: Prof Arshad Rahman Jan 2018 – April 2018

- Developed an understanding of Semiparametric Ordinal Models, Bayesian Quantile Regression, Metropolis Hastings & Gibb's Sampling Methods

SELECT COURSE PROJECT

SOLAR RADIATION OVER INDIA: DYNAMIC PANEL MODEL

Mentor: Prof Somesh Mathur, ECO342 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

ECONOMETRIC ANALYSIS OF AIR POLLUTION

Mentor: Prof Debayan Pakrashi, ECO311 Term Paper

- Tested Environment Kuznet's Curve claim and analysed the impact of production & consumption on air pollution over 10 South Asian Economies

CORPORATE INVOLVEMENTS

WORLDQUANT LLC | PART-TIME RESEARCH CONSULTANT

May 2016 – Sep 2017, Feb 2019 – Sep 2019 | Kanpur, India Certificate

- Secured **Country Rank 4 & Global Rank 15** in consultant only competition for June'19 based on alpha(trading strategy) quality
- Combined various financial concepts like Black Scholes Option Pricing, Fundamental & Technical Analysis to create 100+ **feasible** trading strategies

ACCENTURE DIGITAL | BUSINESS ANALYTICS INTERN

May 2019 – Jul 2017 | Gurugram, India Certificate

- 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