

# Anshul Goel

anshul96go@gmail.com | +91 88531-45953

## 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:

Selenium • BeautifulSoup

Open Source:

Contributed to blotter (R package)

## 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

## 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)

## 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

### 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

### 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

### ECONOMETRIC ANALYSIS OF AIR POLLUTION

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

## 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**