# **Amit Chaudhary**

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A finance professional with expertise in econometrics, computational statistics, and mathematical modeling. Industry experience in finance focused on credit risk management of consumer debt portfolios.

#### SKILLS

**Econometrics** Regression models, time-series/panel data analysis Computational Statistics Inference, bootstrapping, Monte Carlo simulations, mixture models, Markov chain Machine Learning Research: unsupervised learning (clustering); Application: supervised learning, NLP Causal Inference A/B testing (experiments), difference-in-differences, regression discontinuity, IVs **Programming** R (5+ years), Python (3+ years)Data Management SQL, Postgres, Spark, Redis Cloud Computing AWS, parallel programming for HPC clusters OS & Software UNIX (bash scripting), Git, Stata, ArcGIS, Tableau, LATEX, OCR

### **EDUCATION**

| University of Warwick                       |             |
|---|-------------|
| PhD, Economics (fully funded)               | 2017 - 2021 |
| MRes, Economics (Distinction; fully funded) | 2015 - 2017 |
| Delhi School of Economics, New Delhi        |             |
| M.A., Economics (First division)            | 2012 - 2014 |
| Indian Institute of Technology, Kanpur      |             |
| B. Tech, Chemical Engineering               | 2002 - 2006 |
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### RESEARCH EXPERIENCE

### University of Warwick

Research Assistant, Finance group, Warwick Business School

2021 - present

- Analysing effects of retail investors on after-hours trading in equities markets using reddit (Wallstreetbets) data.
- Working on the fundamental drivers of volatility for USD pegged stablecoins and arbitrage mechanisms.
- Automating market data collection of a stablecoin from DeFi systems using GraphQL with Python programs.

 $PhD\ Research$  2017 – 2021

- Developed a novel estimation method and an automated tool in R combining machine learning with latent class models and Markov chains.
- Webscraped and analysed information from multiple data sources (structured and unstructured) using R and Python across several research projects. e.g. Airbnb listings data, Zoopla's property database, plot level geospatial land records, crime reports, and historical manuscripts.
- Delivered presentations at multiple forums and clearly communicated complex ideas to heterogeneous audience.
- Demonstrated exceptional project management skills by managing multiple research projects simultaneously.

Sessional Tutor 2017-2020

• Demonstrated leadership and mentoring skills as a tutor of Advanced econometrics (EC338), Statistical techniques (EC124) and Mathematics (EC121) modules of undergraduate curriculum.

### Industry Experience

# JP Morgan Chase

Mumbai, India

Credit Risk Strategist

2009 - 2012

- Part of global credit risk management team, responsible for credit risk management of unsecured debt portfolios.
- Evaluated and proposed business strategies that offer best risk-adjusted returns on the portfolio.
- Created substantial business impact by customer acquisition strategy (\$7.1M), credit line management (\$3.6M)

ICICI bank
Analyst
Mumbai, India
2008 – 2009

• Responsible for development, validation, and implementation of econometrics based models for capital adequacy calculations, stress testing, credit scoring, and predicting probability of default.

Pune, India Ansys 2006 - 2008

Development Engineer

• Integrated the Computational Fluid Dynamics PDE solver with chemical process simulator by coding the Scheme language wrapper around core C++ libraries.

#### Research Papers

# Optimal matching and productivity: Does worker, manager and firm heterogeneity matter?

- Developed a new estimator combining latent class models with a state space based Markov model.
- Estimated model parameters using high performance computing; computational inference is done using Monte Carlo simulations.
- Used Python to webscrape half a million crime reports and converted unstructured data (pdf reports) into structured tables (RDBMS).

### Effects of Airbnb on the housing market: Evidence from London.

- Analyzed how entry of Airbnb affects rental housing market prices through supply constraints.
- Combined webcraped Airbnb data with property listings from Zoopla and estimated the model parameters.

# Spatial allocation of public goods: The role of caste and politics in India.

- Showed that when politician from a certain caste is elected, he/she allocates public goods to his/her own caste.
- Combined data on 40 million webscraped land records covering 300k sq.km with 10 million geocoded public goods.

### Resisting modernisation due to resentment? Evidence from British India

- Showed how foreign occupation can make locals resist modern education using instrumental variable regression.
- Digitized archival data from 1881-1921 using the table recognition and OCR techniques on scanned images.

# AWARDS AND ACHIEVEMENTS

University of Warwick PhD Scholarship 2017-2021

Economics Departmental Scholarship (MRes) 2015 - 2017

Visiting Researcher at Warwick Institute for the Science of Cities 2017 - 2021

Conference presentations: LSE (OWL, London 2019); Warwick Postgraduate Colloquium in Computer Science

(WPCCS) 2018; Centre for Competitive Advantage in the Global Economics conference,

Warwick 2017 and 2019; UN World Cities Day, Warwick 2019

Certifications: Bloomberg Market Concepts (2021)

# Residency status

Indefinite leave to remain (ILR) in the UK