

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, L ^A T _E X, 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

RESEARCH EXPERIENCE

University of Warwick

Research Assistant, Finance group, Warwick Business School 2021 – present

- 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.
- Web scraped 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

Mumbai, India

Analyst

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.

Ansys

Pune, India

Development Engineer

2006 – 2008

- 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