Amit Chaudhary

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

SKILLS

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
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

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

2017 - 2021

Forward premium puzzle and carry trading in the cryptocurrency market

- Identified the risk factor which predicts cryptocurrency exchange rates and generates carry trade returns of 125%
- Developed the systematic trading strategy using data from cryptocurrency exchanges and lending platforms

Volatility in cryptoassets: Stablecoins and decentralized finance

- 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.

After-hours trading in the equities market

• Analysing effects of retail investors on after-hours trading in equities markets using Reddit (Wallstreetbets) data.

Machine learning, statistics, and high-performance computing

• Developed a novel method available as a R package (acblm) to estimate unobserved heterogeneity using panel data

Peer-to-peer markets: The Airbnb effect on the property market in London

• Analyzed how the entry of Airbnb affects rental prices by combining Zoopla and Airbnb historical listings data

Tutor of statistics, mathematics, and econometrics modules

• Taught Advanced econometrics (EC338), Probability and Statistical techniques (EC124) and Mathematics (EC121)

Industry Experience

JP Morgan Chase Credit Risk Strategist Mumbai, India 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.

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

Forward premium puzzle and carry trading in the cryptocurrency market

- Identified the source of deviation in interest parity conditions in the cryptocurrency futures market
- Developed the carry trading strategy using the signal constructed from the cryptocurrency lending platforms to generate the excess returns

Decentralized Stablecoins and Collateral Risk (Research assistant)

- Studied mechanisms that govern price stability of MakerDAO's DAI token, the first decentralized stablecoin.
- Collected and analyzed data of prices, underlying collateralized positions, liquidations, and supply of decentralized currency Dai from Defi systems

News and Trading After Hours (Research assistant)

• Investigating how retail investors gather news from social media platforms like Reddit (Wallstreetbets) and affect the after-hours market through Robinhood trading platform

Does worker, manager, and firm heterogeneity matter for productivity?

- Developed a new estimator combining machine learning (clustering) 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.

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

British citizen