AJAY VENKATARAMAN

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EDUCATION

Warwick Business School, University of Warwick Oct'19 – Mar'24
PhD Finance and Econometrics London, UK

Harvard University Mar'21 - Mar'22
Research Scholar, Harvard Kennedy School Cambridge, MA, USA

King's College London Sep'17 – Jan'19
MSc Banking and Finance; Graduated with Distinction London, UK

WORK EXPERIENCE

ICE (InterContinental Exchange) Mar'26 - Present
Senior Quantitative Modeller London, UK

- Conducted factor research across fixed income, equity, and MBS asset classes, leveraging alternative datasets, clustering techniques, and machine learning models, including XGBoost and LSTM to capture non-linear risk dynamics and improve model precision by ~20%.
- Applied Bayesian modeling and model validation frameworks to assess near-term physical climate risks and transition risk exposures, integrating catastrophe modeling and delinquency analysis into risk-adjusted metrics.
- Developed and validated quantitative models using Sharpe ratio-based evaluation, tracking error minimization, and modern portfolio theory to assess climate-adjusted performance across multi-asset portfolios.

Quantitative Modeller Sep'24 – Mar'26

- Specialized in risk modeling and pricing across fixed income, MBS, and equity asset classes, with expertise in risk decomposition, Value-at-Risk (VaR), and scenario-based stress testing, leading to a 15% reduction in model errors.
- Applied Monte Carlo simulation, GARCH-based volatility modeling, and time series analysis to quantify credit and market risk, while developing CVaR measures and climate-adjusted credit risk estimates (PD/LGD) with PCA-driven risk decomposition.
- Integrated high frequency data models into the tech stack using cloud computing, data pipeline orchestration, and data warehousing to build scalable, high-performance solutions for multi-asset portfolio stress testing and scenario analysis.

Unwritten Mar'24 - Aug'24
Economist – Climate Scenarios & Macro Modelling London, UK

- Led NGFS-based scenario modelling for regulatory stress tests and economic scenarios, and developed EEIO-based macro models to optimize asset allocation strategies and support compliance.
- Refined financial sector forecasts by applying VAR, DSGE, ABM, and Monte Carlo techniques, integrating climate policy levers to improve prediction accuracy for equities, bond yields, and credit spreads by 15%.

River Evolution Partners Jan'20 - Jul'23
Financial Analyst – Financial Modelling & Valuations London, UK

- Spearheaded proprietary searches and utilized industry connections to identify high-value investment opportunities in the fintech and healthcare sectors, collectively valued at £17 million
- Streamlined financial modeling and valuation processes using DCF, IRR, and LBO techniques, reducing lead time by 15 hours weekly, while partnering with founders and executives to analyze emerging business models and advise leadership on strategic decisions.

Evidence for Policy Design, Harvard University Mar'21 - Mar'22
Associate – Economic Modelling & Data Infrastructure Cambridge, MA, USA

- Directed RCT project operations from survey design to data analysis, employing stochastic models, Difference-in-Differences, regression discontinuity and causal inference frameworks to ensure precision in deliverables through stringent quality assurance.
- Established and optimized data infrastructure using Python and NLP, reducing data errors by 80% through enhanced coding practices, while creating insightful visualizations and policy briefs that cut meeting times by 25%.

AWARDS AND ACHIEVEMENTS

- Recipient of a £80,000 WBS Research award in recognition of exceptional academic achievements in research and academia (2019-2024).
- Honored with the 'Award for Outstanding Contribution to Teaching' by Warwick Business School (2022, 2024).
- Recipient of the 'Prof. CNR Rao Merit' Scholarship' awarded to the top 1% of students for academic excellence (2014, 2015, 2016).
- Elected as President to the student council for three consecutive terms (2014, 2015, 2016).

SKILLS AND INTERESTS

- Python [NumPy, Pandas, NLP, LLM]
- Regulatory Compliance [IFRS 9, CECL]
- BigQuery, MongoDB, GCP, MATLAB
- Divergent & System Thinking
- Collaborative Leadership
- Agile Project Management
- Chess [Lichess Rating -2326]
- Author - Fintech blog
- Carnatic Music Vocalist