

Apoorva Lal

lal.apoorva@gmail.com | apoorvalal.github.io | github.com/apoorvalal | linkedin.com/in/apoorvalal |

Employment

Economist II, Amazon Web Services (AWS) | San Francisco, CA 05/2025 | Present
Applied econometrics R&D on the AWS Central Economics and Science (ACES) team. Developed valuation and attribution models used for recommendations and reporting of 50B+ sales revenue to finance and partner orgs. Causal inference R&D for delayed outcomes using large-scale transformer-based models.

Research Scientist, Netflix | Los Gatos, CA 08/2024 | 05/2025
Machine Learning and Inference Research (MLIR) team. Research on causal inference, applied econometrics, and machine learning for experimentation and observational studies; developed a large scale econometric demand model used for catalogue planning and release scheduling and implemented and deployed in production using pytorch and metaflow.

Data Scientist, Netflix | Los Gatos, CA 08/2023 | 08/2024
Cross-functional work on core experimentation platform (XP) and MLIR. Developed methodology and software for long-term causal inference, metric development, and ML applications. Maintained and shipped features on experimentation platform (ABlaze).

Causal Inference & Experimentation Intern, Netflix | Los Gatos, CA 06/2022 | 09/2022
Developed econometric methodology and open-source R package for generalizing experimental estimates using double machine learning. Collaborated with business verticals to accelerate learning from experiments.

Consulting Data Scientist, World Bank DIME | Remote 06/2021 | 09/2021
Applied econometrics, ML, and NLP to projects in political economy and law. Designed heterogeneous effects estimators for universe of US district and circuit-court cases; implemented survey experiments and judicial education impact analysis.

Education

Ph.D. Political Science (Statistical Methodology) | Stanford University 2018–2023
Highest distinction; Committee: Guido Imbens, Jens Hainmueller, Avi Acharya, Justin Grimmer, Stefan Wager

M.A. Economics | University of British Columbia 2017–2018

B.A. Economics, Political Science | Williams College 2011–2015
Highest Honors

Technical Skills

Programming: Python, R, Julia (advanced); Matlab, Stata, Stan, C++ (intermediate)

ML/Data: Scikit-learn, PyTorch, JAX, TensorFlow, Spark, SQL, Pandas, NumPy

Causal Inference: Panel Data Methods, instrumental variables, double-ML, structural demand models

Experimentation: A/B testing, adaptive experiments, sequential testing, variance reduction, heterogeneous effects

GitHub: github.com/apoorvalal – 800+ github stars; co-maintainer of pyfixest library, dev pyensmallen, duckreg

Selected Publications

Lal, A. “Does Regression Produce Representative Causal Rankings?” *arXiv, CODE* (2024)

Lal, A., Fischer, A., Wardrop, M. “Large Scale Longitudinal Experiments: Estimation and Inference” *CODE* (2024)

Lal, A., Thompson, D.M. “How much did Private Election Administration Funding advantage Democrats in 2020?” *PNAS* (2024)

Lal, A., Xu, Y., Lockhart, M., Zu, Z. “How Much Should We Trust Instrumental Variable Estimates in Political Science?” *Political Analysis* (2024)

Lal, A., Gulzar, S., Pasquale, B. “Local Representation And Forest Conservation: Evidence From India’s Scheduled Areas.” *APSR* (2024)

Lal, A., Zheng, W., Ejdemyr, S. “A Framework for Generalization and Transportation of Causal Estimates under Covariate Shift” *CODE* (2022)

Complete publication list: [Google Scholar](https://scholar.google.com/citations?user=apoorvalal)