Juliette Coly

Landau Economics Building, Stanford University
Stanford, CA, 94305

650-709-6400
jcoly@stanford.edu
juliettecoly.github.io

EDUCATION

- **Stanford University** — Stanford, CA
  Ph.D. in Economics — Sep. 2022 - Now
- **Ecole Normale Supérieure** — France
  MSc and BS in Quantitative Economics — Sep. 2017- Jun. 2020

WORK EXPERIENCE

- **Stanford University** — Stanford, CA
  Teaching Assistant of Prof. Kevin Chen — Sep. 2025 - Now
  Designing the course material and teaching a PhD-level econometrics course on theoretical foundations of econometric identification and inference, with an emphasis on asymptotic theory and estimation methods (GMM, extremum estimators, and large-scale inference, ...).

- **Stanford University** — Stanford, CA
  Graduate research assistant with Prof. Guido Imbens — Sep. 2023 - Now
  Coding econometric models (among which matrix completion estimators) to compare their performance on panel data with different structures.

- **Quantco** — Berlin, Germany
  Data science intern — Jun. 2024-Sep. 2024
  Employed causal inference models (IPW, IV, and metalearners) alongside microeconomic theory to estimate the effect of deductibles on profits in the auto insurance industry. Resulted in a new pricing model for the insurance company.

PROJECTS AND WORK IN PROGRESS

The political effects of transport infrastructure This paper investigates how spatial integration fostered nation-building during the French railroad expansion (1870–1900). I utilize empirical methods in network inference (IV, counterfactual network, ...) to study the effect of railroad connectivity on the spoken local languages.

Text as outcome within a causal inference framework (Project Link)
I investigate the evolution of topics in political speeches by Republicans and Democrats before and after 9/11, using a causal inference framework. I analyze how different topic modeling approaches—LDA and BERTopic—affect the estimation of treatment effects. This underscores the pivotal role of textual representation in shaping the interpretation of causal estimates.

Work in progress :

- Urban renewal and firm clustering.
- The impact of AI on scientific discoveries.

Programming Languages: Python (Scikit-Learn, PyTorch), R, SQL

Relevant CS courses at Stanford CS229: Machine Learning, CS 224N: NLP with Deep Learning, EE364A: Convex Optimization, CS161: Algorithms, CS106B: Programming Abstractions.