Juliette Coly

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Education

- **Stanford University** — Stanford, CA
  Ph.D. student in economics — *Sep. 2022 - Now*
- **Ecole Normale Supérieure** — France
  MSc and BS in Quantitative economics — *Sep. 2017- Jun. 2020*
- **Lycée Janson de Sailly, Collège Stanislas** — France
  BS and BA in economics, math, and social sciences — *Sep. 2014-Jun. 2017*

Work Experience

- **Stanford University** — Stanford, CA
  Graduate research assistant for Prof. Guido Imbens — *Sep. 2023 - Ongoing*
  - Coded econometric models (among which matrix completion estimators) in order to compare their performance on panel data with different structures (many units and/or many time-periods).
- **Stanford Graduate School of Business** — Stanford, CA
  Research assistant in economics (Pre-doc) — *Jun. 2020 - Jun. 2022*
  - (work with Prof. Imbens) Coded variance estimators in order to evaluate the properties of a robust variance estimator in the context of clustered experiments (article in the *Quarterly Journal of Economics*).
  - (work with Prof. Takuo Sugaya) Coded several demand estimation models and built a pipeline from raw retail data (Nielsen) to demand estimation for more than 20 products with the goal of building tools to detect collusion

Projects

- **Employee Churn Prediction(notebook)** — Python, scikit-learn

  Constructed models to predict which employees will leave (churn) based on demographics and performance records. Used the following algorithms: Logistic Regression, Random Forest, Gradient Boosting.Evaluated model by Confusion Matrix; best model has precision 0.78, recall 0.51, with AUC score 0.74.

- **Clustering customers (notebook)** — Python, scikit-learn

  The goal is to cluster customers according to their purchasing patterns. I use two datasets to do so. The first one contains aggregate variables concerning a consumer purchases. The other contains, for each customer, how many time a product has been bought. Since the latter dataset is very big due to the numer of products, I am performing a PCA. The two K-mean clustering algorithms have an adjusted RAND score of 0.75.

Programming Languages: Python, R, SQL

Interests Touring guide at the Stanford Art museum, certified 200h-Yoga teacher.