Arthur Langlois

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Education

University of Chicago *January 2023-*
Graduate Student at Large (GSAL) *Chicago, IL*
Coursework: Machine Learning for Economists (graduate-level), Microeconomics for Development (graduate-level), Analysis in Rn I., Mathematical Methods for Economic Analysis.

Northeastern University *September 2018-August 2022*
B.S. Economics (minor Mathematics) *Boston, MA*
Relevant coursework: Microeconomics I/II, Macroeconomics I/II, Applied Econometrics, Behavioral Economics, Development Economics, Statistics and Stochastic Processes, Linear Algebra, Calculus I/II. Programming with Data, Health Economics, Differential Equations and Linear Algebra for Engineering.

Le Wagon *June-July 2021*
Certificate in Data Science *London, UK*
Coursework in Computational Statistics, Machine Learning (Supervised & Unsupervised), Deep Learning (CNN's, RNN, NLP, Image Recognition), Data Engineering and Model Deployment.

Experience

University of Chicago Law School *March-May 2023*
Teaching Assistant *Chicago, IL*

- TA for Dr. Richard Sandor's "Law and Economics of Natural Resource Markets" graduate-level course. Held weekly office hours assisting public policy, business, and law students with microeconomics theory and environmental markets material. Grading of student papers, literature review on various environmental policies, slide and course design.

University of Chicago Law School *September 2022-*
Research Specialist, Coase-Sandor Institute for Law and Economics *Chicago, IL*

- Constructed a 10-year database on school finances, population characteristics, and housing prices for 400+ U.S. locations using GIS and Google Maps APIs. Lead analysis and designed empirical framework leveraging exogenous variation in K-12 education spending from State Court decisions as an instrument to assess the impact of education spending on housing prices in U.S. cities (*PIs: A. Chilton & A. Malani*).
- Implemented matching methods (coarsened exact matching and propensity scores) and Synthetic DiD to estimate the relationship between Bilateral Labor Agreements and worker migration across countries (*PI: A. Chilton*).
- Used heterogeneity-robust DiD estimators for a project aiming at quantifying the impact of unamendability measures in countries' constitutions on democracy levels (*PI: A. Chilton*).
- Scraped data from various State Department of Environmental Protection websites for aiming to quantify environmental violations by coal mining companies in Kentucky, West Virginia, and Pennsylvania (*PI: J. Macey*).
- Collected, cleaned, and analyzed data using state-of-the-art econometrics methods on various projects including investigating the relative welfare improvements of forced migration of Rohingya women to India, quantifying the relationship between Bilateral Investment Treaties and U.N. voting convergence between countries. (*PI: A. Chilton*)

Northeastern University *January 2021-August 2022*
Undergraduate Researcher *Boston, MA*

- Co-authored a paper studying the compositional shift in new employee H-1B visa applications that were approved before and after the 2017 "Buy American and Hire American" Presidential Executive Order. Led the analysis, developed the identification strategy, and implemented the econometric framework. Paired a standard two-period "DiD" approach with more powerful non-linear models. Generated SHAP values from these ML algorithms to measure the evolution in the importance of application features over time.

NUEcon Press   *September 2019-August 2022*
Reviewer/Editor   *Boston, MA*

- NUEcon Press is an academic journal publishing undergraduate research in economics and related fields. Provided review, evaluation, and edition of paper submissions.

Trispan   *January-April 2021*
Private Equity Research Intern   *London, UK*

- Preparation of finance presentations, market research and data collection on investment opportunities in the health care, real estate and food & beverage industries (contribution to the creation of a 100 Million GBP "top-up" fund targeting the leisure industry post Covid-19 crisis).
- Conducted financial analysis of companies, participated in the valuation process.

Northeastern University   *January-July 2020*
Research Assistant   *Boston, MA*

- Collected data on state and county wide social distancing measures, emergency calls for a project studying the effects of COVID-19 social distancing measures in the U.S. on domestic violence.
- Conducted data collection about demographic study of SNAP households and delays on disbursements of benefits for a project on effects of 2019 partial American Federal government shutdown on food stamps distribution and consumption smoothing.
- Scraping of online databases and use of APIs to complete database prior to the setting of econometric models along with data cleaning and data analysis for a paper studying the impact of U.S. immigration policy on labor force and firm productivity.

Boston Cares   *January-April 2019*
English Teacher   *Boston, MA*

- Taught English to first generation immigrants from Latin America. Used skills in Spanish to communicate with students and designed classes, activities and homework. Led group discussions and in-class activities.

Research Projects

"America's Municipal Finance Trilemma: Education Spending, Property Taxes, & Housing Costs" with A. Chilton, A. Malani, and S. Roy   *In progress*

"Vote-Selling as Intertemporal Discounting Under Imperfect Information"   *In progress*

"Buy American and Hire American: Quantifying the Effect of Trump's Executive Order on H-1B Visa" with Urbashee Paul   *Available on SSRN*

Technical skills

Programming Languages/Tools	Python, Stata, LaTeX, R, Git, Bash

Grants & Presentations

Undergraduate Research Initiative	Received funding for $1,280 from Northeastern College of Social Science and Humanities for "Make our voices heard: Examining the Roots of Consistent Following of Public opinion on Climate" project.
RISE Virtual Expo	Presented my two research projects: "Differential Impacts Across States of Gun Control Legislation Following the 2018 Parkland Shooting" and "Make our voices heard: Examining the Roots of Consistent Following of Public opinion on Climate" on April 14th 2022.