

Diego Escobar Salce

descobarsalce@uchicago.edu • (312) 678-5684
[LinkedIn](#) • [Research Website](#) • Chicago, IL, U.S.

Economics | Causal Inference | Machine Learning

Economist and Data Scientist fascinated by computer science and experienced in managing projects involving predictive analysis using Machine Learning and statistical tools for causal inference to drive evidence-based decision-making.

Education

Ph.D. in Public Policy (Applied Economics)

The University of Chicago, U.S.,
Expected Jun 2023

Fields: Econometrics (Econ. Dept.),
Labor, Economics of Education

M.S. in Computational Analysis and Public Policy (MSCAPP)

The University of Chicago, U.S.,
Expected Jun 2023

M.A. in Economics (Financial Econ.)

Pontifical Catholic University of Chile
(Ranked #1 in Latin America by [Times Higher Ed.](#) & [QS](#); #3 by [USNews](#)),

Santiago, Chile, 2014
Cohort ranking: 4/33. Magna cum laude. Thesis maximum honors.

B.A. in Economics

Pontifical Catholic University of Chile (PUC Chile), Santiago, Chile, 2013

Cohort ranking: 22/260. Magna cum laude.

Technical Proficiencies

Advanced: Python | R | SQL | Stata
MATLAB | AWS S3/EC2 | Git
ScikitLearn

Intermediate: Tensorflow | Keras
Torch | PySpark | GIS

Selected Coursework

IBM AI Engineering Professional Certif.

Machine Learning for Public Policy

Deep Learning

Probabilistic Graphical Models

Databases Structures Design

Optimization Conscious Econometrics

High-Dimensional Econometrics

Qualifications Summary

- 9 years of experience conducting data-intensive economic research by exploiting advanced statistical/econometric modeling to answer real-world questions.
- Advanced statistical and mathematical skills. In-depth knowledge of experimental and quasi-experimental models for causal inference and machine learning algorithms, including hands-on experience implementing them in Python.
- Experience modeling using structured large datasets, semi-structured data such as JSON/HTML, and non-structured data such as text and images.
- Proficient communicator with experience presenting research results and teaching students of different levels and backgrounds.

Professional Experience

The University of Chicago, Chicago, IL
Ph.D. Researcher

2017 – Present

Steer end-to-end functions associated with deploying experimental and quasi-experimental methods, from data collection and processing to data analysis.

- Studied the causal impact of nationwide schools' screening practices on students' sorting across schools using differences-in-differences, instrumental variables, and simulations in JAVA to estimate counterfactual allocations.
- Constructed novel data sources by web scraping and using fuzzy text matching to millions of observations with models such as random forest and XG-Boost to link them to administrative datasets, obtaining 91 percent precision.
- Classified grant descriptions using deep learning in Python (CNN).
- Teaching assistant for over 20 Ph.D., master, and undergrad level courses in Advanced Econometrics, Machine Learning, and Economics, lecturing with up to 60 students per course, and obtaining outstanding student reviews (4.8/5.0).

J-PAL Poverty Action Lab (Research Center), Santiago, Chile
Research Associate

2015 – 2017

Designed and performed data analysis of individual and market-level experiments through Randomized Controlled Trials (RCTs)

- Fostered productive relationships collaborating with technical and non-technical partners such as 3ie, CAF Development Bank of Latin America, the Chilean Ministry of Education, the Chilean Ministry of Pensions, and several NGOs.
- Managed projects timeline and produced deliverables to grant makers and partners.

PUC Chile, Economics Department, Santiago, Chile
Research Assistant (Full Time)

2014 – 2015

Researched using quasi-experimental methods such as instrumental variables, RDD, panel data methods, and demand estimation.

- Measured labor force responses to government regulations by coding model calibrations and economic simulations in MATLAB.
- Extracted and georeferenced plant-level data based on census images using GIS.