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| Diego Escobar Salce  Economics | Causal Inference | Machine Learning | [descobarsalce@uchicago.edu](mailto:descobarsalce@uchicago.edu) • (312) 678-5684  [LinkedIn](http://www.linkedin.com/in/diego-escobar-salce) •[Research Website](https://descobarsalce.github.io/)• Chicago, IL, U.S. |

Economist fascinated by computer science applications and experienced in enacting all key facets of research projects, machine learning models, and statistical analysis for causal inference to drive evidence-based decision-making.

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| Education  Ph.D. in Public Policy (Applied Economics)  The University of Chicago, U.S.,  Expected Jun 2023  Field: Econometrics (Economics Dept.)  M.S. in Computational Analysis and Public Policy (MSCAPP)  The University of Chicago, U.S., Expected Jun 2023  M.A. in Economics  Pontifical Catholic University of Chile (Ranked #1 in Latin America by [Times Higher Ed.](https://www.timeshighereducation.com/world-university-rankings/2022/latin-america-university-rankings) & [QS](https://www.topuniversities.com/university-rankings/latin-american-university-rankings/2023); #3 by [USNews](https://www.usnews.com/education/best-global-universities/latin-america)), Santiago, Chile, 2014  Magna cum laude. Thesis maximum honors. Cohort ranking: 4/33  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 | ScikitLearn  Intermediate: GIS | Apache Spark Torch | Tensorflow/Keras  Selected Coursework  Machine Learning for Public Policy  Probabilistic Programming and Deep Learning  Probabilistic Graphical Models  Databases Structures for Pub. Policy  Optimization Conscious Econometrics  Advanced Microeconometrics  High-Dimensional Econometrics | Qualifications Summary   * 9 years of experience conducting quantitative economic research by exploiting statistical/econometric modeling and machine learning algorithms. * Expert in experimental and quasi-experimental research methods for causal inference to answer theoretical and real-world questions. * Experienced operating with structured data with millions of observations, semi-structured data such as JSON/HTML, and non-structured data such as text entries and images. * Get to know my current research projects at [https://descobarsalce.github.io](https://descobarsalce.github.io/)   The University of Chicago, Chicago, IL 2017 – Present  Ph.D. Researcher  Steer end-to-end functions associated with deploying experimental and quasi-experimental methods, from data collection and processing to the analysis stage.   * Studied the causal impact of 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 models such as logistic regression, random forest, and XG-Boost to link them to administrative datasets. Obtained 91 percent precision, expanding data coverage by 1000%. * Classified unformatted text/documents using term frequency-inverse document frequency (TF-IDF), and cosine similarity with sparse matrices for efficiency. * Teaching assistant for 13 Ph.D. and master’s level courses in Econometrics/Statistics, Machine Learning, and Economics with up to 90 students per course, obtaining outstanding student reviews (4.8/5.0).   J-PAL Poverty Action Lab (Global Research Center Founded at MIT) 2015 – 2017  Research Associate  Coordinated operations related to the design, development, and execution of individual and market-level experiments through Randomized Controlled Trials (RCTs)   * Fostered productive relationships collaborating with technical and non-technical partners such as The World Bank, 3ie, the Chilean Ministry of Education, the Chilean Ministry of Pensions, and several NGOs. * Experimentally evaluated programs on finance, education, migration, and micro-entrepreneurship.   PUC Chile, Economics Department, Santiago, Chile 2014 – 2015  Research Assistant (Full Time)  Conducted quantitative research using quasi-experimental methods such as instrumental variables, RDD, and panel data models.   * Measured labor force responses to government regulations by coding model calibrations and economic simulations in MATLAB. * Extracted and georeferenced waterpower plant-level data based on census images using GIS and linking to firms based on their location. |