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| Diego Escobar Salce  **Machine Learning | Causal Inference | Econometrics** | [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. |

Data Scientist and Economist 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.

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| Education  Ph.D. in Public Policy (Applied Economics)  The University of Chicago, U.S.,  Expected Jun 2023  Field: Applied Econometrics, Labor Economics, Education Economics  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.](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  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  Probabilistic Programming and Deep Learning  Probabilistic Graphical Models  Databases Structures Design  Optimization Conscious Econometrics  High-Dimensional Econometrics | Qualifications Summary   * 9 years of experience conducting data-intensive quantitative economic research by exploiting statistical/econometric modeling and machine learning algorithms. * Experienced with experimental and quasi-experimental research methods for causal inference to answer theoretical and real-world questions. * Comfortable 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. * Proficient communicator with experience presenting research results and teaching students of different levels and backgrounds, as well as technical and non-technical stakeholders.   Professional Experience  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 fuzzy text matching with models such as random forest and XG-Boost to link them to administrative datasets. Obtained 91 percent precision, expanding data units’ coverage x100. * Classified unformatted text into categories using deep learning in Python. * Teaching assistant for over 20 Ph.D., master, and undergrad level courses in Advanced Econometrics, Machine Learning, and Economics, with up to 90 students per course, obtaining outstanding student reviews (4.8/5.0).   J-PAL Poverty Action Lab (Research Center), Santiago, Chile 2015 – 2017  Research Associate  Conducted operations related to the design, development, execution, and 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. * Conducted successful experimental evaluations in diverse areas such as financial planning, 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 plant-level data based on census images using GIS. |