

Diego Escobar Salce

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Data Science | AI/ML | Economics

[LinkedIn](#) • [Research Portfolio](#) • [Github](#) • Chicago, IL, U.S.

Data Scientist with nine years of experience generating innovative data-intensive research combining Machine Learning, Artificial Intelligence, Economic insights, Statistical Modeling, and Causal Inference for data-driven recommendations.

Professional Experience

Doctoral Researcher - The University of Chicago - Chicago, IL

Sep 2017 – Jun 2023

- Managed project full cycle, including scoping, designing, development, results interpretation, and storytelling.
- Measured unintended [effects of a size-dependent policy](#) introducing incentives to firms to avoid hiring women. Revisions requested for publication in the *Journal of Labor Economics* (considered the top journal in the Labor field).
- Constructed [data on political views of U.S. faculty and foundations](#) by matching large datasets using Random Forests, TF-IDF, and leveraging Large Language Models (BERT/LLM/NLP) to classify 1MM grants' unstructured data in Python.
- Developed a novel econometric method to estimate causal effects of group composition through classroom-level randomization and simulations in Java, generating the first large-scale randomized peer-effects study outside the US.
- Produced first economic literature estimates isolating [supply-side induced segregation by voucher/charter schools](#).
- Directed students as a TA in 16 Econometrics/Statistics, ML, and Economics courses (8 Ph.D.-level, 30-80 students).
- Excelled coaching Booth's EMBA students' work in 6 courses in London & Hong Kong (avg. reviews of up to 4.9/5).
- Led LGBTQ+ and Ph.D. Social organizations, arranging 10+ events for policy diffusion and community building.

Research Associate - J-PAL (Poverty Research Center headquartered at MIT) - Santiago, Chile.

Aug 2015 – Apr 2017

- Collaborated in 8 experimental evaluations (A/B Testing - Randomized Controlled Trials/RCTs) assessing behavioral economics interventions for government offices and NGOs with three research teams, including 5-10 people each.
- Conducted analysis and prepared deliverables for grant-makers and partners, including technical and non-technical partners such as 3ie, IDB, the Chilean Ministries of Education, the Chilean Pensions Supervisor, and multiple NGOs.
- Managed [impact analysis of information delivery on educational choices](#), reaching 235,000 students in 5,600 schools.
- Assessed [impact analysis of personalized vs generic information](#) published in University of Chicago Press Journal.

Graduate Research Assistant (Full Time) - PUC Chile, Economics Dept. - Santiago, Chile

Aug 2014 – Jul 2015

- Implemented statistical analysis of economic policies using observational methods such as instrumental variables, RDD, panel data, and demand estimation on multiple projects in labor economics, technological growth, and energy.
- Conducted analysis of [micro-entrepreneurship training initiatives](#) published in the American Economic Journal Applied Economics, finding cost-effective intervention allowing our partner to secure funding with our data-backed evaluation.

Education

Ph.D. in Public Policy (Applied Economics/Econometrics), The University of Chicago.

Jun 2023

Field Specialization: Econometrics (Economics Department). Full Scholarship + Stipend for 6 years.

M.Sc. in Computational Analysis and Public Policy (MSCAPP), The University of Chicago. GPA: 3.6/4.

Jun 2023

M.Sc. in Economics, Pontifical Catholic University of Chile. GPA: 3.8/4.

Jun 2014

Magna cum laude. Cohort ranking: 4/33. Distinguished Thesis Award (one per cohort).

B.Sc. in Economics (*Ingeniería Comercial*), Pontifical Catholic University of Chile. GPA: 3.7/4.

Jun 2013

Cohort ranking: 22/260. Magna cum laude. (Ranked #1 in LATAM by [Times](#) & [QS](#)).

Technical Skills

Languages/Software: Python (Preferred, 6+ years), R (6+ years), SQL, Stata, Matlab, Java, ArcGIS, Microsoft Office.

Platforms/Packages: Scikit-learn, Pandas, Matplotlib, Torch, Tensorflow, Keras, Spark, AWS S3/EC2, Github, Tableau.

Machine Learning/AI: Logistic, Linear, and Lasso Regressions, K-means Clustering, K-NN, SVMs, PCA, Bagging, Boosting, Decision Trees, Random Forests, Neural Networks (CNN, RNN), Autoencoders, Big Data, Large Language Models (LLM).

Research/Statistical Methods: Causal Inference Design (e.g., Randomization, Instrumental Variables, Regression Discontinuity, Differences-in-Differences, Panel Data Analysis, Matching, Synthetic Control), Time-Series, Monte-Carlo.

Selected Certifications/Coursework: AWS Cloud Practitioner, IBM AI Engineering (IBM Cloud), Machine Learning, Prob. Graphical Models, Causal ML, Prob. Programming and Deep Learning, Databases Design, Optimization Econometrics, Adv. Econometrics (x3), Microeconometrics, Adv. Microeconomics (x2), Industrial Organization (x2), Labor Economics.