

ÁLVARO CARRIL

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EXPERIENCE

Economist , Revelio Labs	New York, NY	July 2024 – Ongoing
<ul style="list-style-type: none">Conduct analysis on workforce dynamics using high-frequency data for internal and external stakeholdersDevelop and deploy machine learning models to predict salary and labor market transition dynamics		
Project Manager & Senior Data Scientist , ConsiliumBots	New York, NY	2020 – 2024
<ul style="list-style-type: none">Conducted independent research on educational & financial decisions using empirical and structural methodsDesigned and implemented large-scale field experiments and RCTs to measure biased beliefs and the effect of information on choices using Instrumental Variables methods		
Research Analyst & Data Scientist , National Bureau of Economic Research	Cambridge, MA	2017 – 2018
<ul style="list-style-type: none">Estimated the effect of major & institution choice on labor market outcomes using Regression Discontinuity methodsPublished a peer-reviewed paper on covariate balance with a large number of clusters in random treatment assignments		
AI & Policy Consultant , Inter-American Development Bank	Recife, Brazil	2022 – 2023
<ul style="list-style-type: none">Designed experiments to measure the effect of financial education on retirees' choice of pension in a government chatbot		
Research Associate & Data Scientist , J-PAL	Chile & Dominican Republic	2016 – 2017
<ul style="list-style-type: none">Estimated the effect of changes in international taxation on firm-level investment using Difference-in-Differences methodsLed 8 research assistants and developed software to automatize digitization and processing of historical data at scale		

SELECTED PROJECTS

OsoBot (link ↗)	Bogotá, Colombia	2023 – Ongoing
<ul style="list-style-type: none">Designed and developed a chatbot to help students explore occupations and corresponding career pathsDeveloped and evaluated the effectiveness of custom LLMs in delivering reliable and relevant educational informationDeployed chatbot to 50,000 students in Bogotá in coordination with local government		
IcfesBot (link ↗)	Colombia	2021 – 2024
<ul style="list-style-type: none">Designed a chatbot that surveys and informs students about higher education degrees and financing optionsLed data science team that annually deployed chatbot to ≈100,000 users in coordination with the Ministry of EducationDeveloped data pipelines (SQL and NoSQL) and multiple back-end services (AWS Lambda & API Gateway)Refined cold-start recommendation system by tuning and A/B testing different machine learning models		

EDUCATION

Princeton University , Princeton, NJ	June 2024
<i>Ph.D. in Economics</i>	
Specialization: Labor Economics, Industrial Organization	
Princeton University , Princeton, NJ	2020
<i>M.A. in Economics</i>	
University of Chile , Santiago, Chile	2013
<i>B.A. in Business & Economics</i>	

COMMUNICATION & TEACHING EXPERIENCE

Graduate Teaching Assistant , Princeton University	Princeton, NJ	2020 – 2023
<ul style="list-style-type: none">Organized and taught precepts in Microeconomics, Fintech and Econometrics at the graduate and undergraduate levels		
High School Teacher , Teach For All	Chile	2014 – 2016
<ul style="list-style-type: none">Taught mathematics, physics and Python programming in a low-income school		

SELECTED HONORS & AWARDS

Social Data Science Graduate Fellow , for research at the technical forefront of quantitative social sciences	2023
Overdeck Education Fund , to support creative, interdisciplinary research on important issues in education	2021, 2022
The Agency Fund Grant , to support projects that leverage AI to enhance human agency	2021
Princeton University Graduate Fellow , funded stipend and tuition	2018 – 2023

SKILLS

- Languages:** Python, R (+ Shiny), Julia, SQL (highly proficient); Typescript, Lua, Bash (working knowledge)
- Frameworks:** AWS: Lambda, API Gateway, EC2, DynamoDB, Aurora; ML: TensorFlow, PyTorch, sklearn; Docker
- Statistics & Methods:** Causal Inference (RCT, IV, DiD, RDD), Structural / Statistical Modeling