Social data scientist and demographer with more than 10 years of experience designing, managing, supervising, and analyzing applied and academic social studies. Strong quantitative-qualitative skills and theoretical background. Eager to apply my knowledge and skills to solve social problems and work with interdisciplinary teams. Authorized to work in the U.S.

Skills

- o Data Science: Machine Learning, NLP, Visualization (Dash, Shiny), pySpark, SQL, Databricks.
- Modeling: Proficiency and experience in statistical and demographic techniques (GLM, multilevel models, SNA, SEM, survival analysis, causal inference, Bayesian statistics). Agent-Based Modeling (ABM) and Simulation. See publications on my website.
- **Research**: Designed, analyzed and presented research in academic conferences applied and academic research projects on social inequality, education, public opinion, social psychology, adolescent behaviors, and social networks.
- Survey Research: Experience designing and implementing questionnaires using different modes (in-person, phone, web), sampling and analysis adjustments (weights, missing data). Created R package sampler for practitioners.
- **Project Management**: Led more than 20 research national and international projects, teams of 40 people, and manage an annual budget of US\$400,000.
- Software: Statistics: R, Stata, Mplus, HLM, SPSS, SAS, CTM, Stan, INLA. Qualitative software: Nvivo. Data entry and processing: CSPro. Social Network: Ucinet, R-Siena. Agent-based modeling (ABM) and System Dynamics: Anylogic, Netlogo.
- o **Programming**: Python, Java (basic).
- o Languages: English (fluent) and Spanish (native).

Professional Experience

Senior Quantitative Social Scientist

Unitos Inc May 2018−present

Provide user insights through design and analysis of experiments, NLP and machine learning.

Research Associate

Center for Justice and Society Studies, Catholic University of Chile

2016-present

Co-investigator of the project Women Re-entry Study.

Methodology Consultant

Center for Social Studies (DESUC), Catholic University of Chile

August 2010-present

Designed sampling and post-adjustments in nationally representative studies in Chile. Provided methodological guidance (attrition, non-response adjustments).

Research Assistant

University of Wisconsin-Madison

July 2012-August 2018

Participated in four academic research projects. See my website for details.

R Package Developer

Applied Population Laboratory (APL), UW-Madison

2014-2018

Created and maintained the R package acsr to help extract variables and statistics using the America Community Survey and Decennial US Census.

Director

Center for Social Studies (DESUC), Catholic University of Chile

2005-2010

Led projects in areas such social cohesion, political perception and government approval ratings, education, tobacco and substance, crime and delinquency, and organizational studies. I was involved in writing grant proposals, budget estimation, methodological design (theoretical framework, sampling design, instruments), analysis and presentation of results. A key project was the Survey of Social Cohesion in Latin America(ECosociaL) that involved 7 countries: Chile, Argentina, Brazil, Colombia, Guatemala, Mexico and Peru, and 10,000 cases.

Lecturer

Catholic University of Chile

2008-2009

Taught courses on advanced methods for social research, qualitative analysis, and design and implementation of social surveys.

Education

Ph.D. (ABD) in Sociology and Demography University of Wisconsin-Madison, US	2010-present
• Fellow • The Data Incubator, US. Capstone Project: Tracking sent	iment of Congress members' tweets 2017
Master of Arts in Sociology Catholic University, Chile	2009
Bachelor of Arts in Sociology Catholic University, Chile	2004