DANIEL JAMES O'LEARY

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About Me

I am a data scientist with research expertise in human behavior. I have technical expertise in predictive modeling, advanced statistics, experimental design, and exploratory data analysis. My subject matter expertise is in decision-making, consumer behavior, motivation/emotion, and health.

Education

Stanford University

PhD in Psychology, Affective Science Concentration; GPA: 4.09

• Stanford Graduate Research Fellowship; Fellow at Institute for Research in Social Science

Northwestern University

BA in Psychology and English Literature; GPA: 3.90; Phi Beta Kappa; Magna Cum Laude

Expertise

Research Methods

• Experimental design, survey design, measurement and psychometrics, power analysis, observational data analysis

Applied Data Analysis

• Regression, hierarchical/multi-level models, inference, statistical bootstrap methods, dimension reduction, factor analysis, predictive modeling, regularized regression, ensemble methods, mediation, structural equation modeling

Programming

• R (expert), Python (intermediate), SQL and relational databases, advanced data visualization, Git, GitHub

Experience

Booth School of Business, University of Chicago

Principal Researcher in Consumer Behavior and Center for Decision Research

- Led, designed, and analyzed 5 research projects on consumer behavior and financial decision-making using experiments and advanced statistical / machine learning methods
- Published papers in peer-reviewed journals and presented findings at conferences
- Developed code and presentation to help researchers analyze large consumer panel datasets on computing cluster
- Mentored 2 students for Master's Theses projects and led team of 3 research assistants

Stanford University

PhD Researcher of Psychology and Behavioral Science

- Led, designed, and analyzed 7 research projects on emotion, motivation, decision-making, and health using experiments and advanced statistical / machine learning methods
- Published papers in peer-reviewed journals and presented findings at conferences
- Taught classes and delivered presentations on emotion, decision-making, and statistical analysis
- Mentored and led team of 6-8 research assistants

Selected Projects

Relative Income and Consumer Behavior | Consumer Panel Data, Multi-Level Modeling, Longitudinal Analyses
Conducted experiments as well as machine learning and multi-level modeling analyses of datasets from Nielsen (n = 950,000), Gallup (n = 3.5 million), and CDC (n = 8 million) on relationships between income comparisons, inequality, and consumer behavior.

Sentiment and Consumer Reviews | Experimental Design, Sentiment Analysis, Predictive Modeling, Web Scraping

• Conducted experiments and sentiment/topic modeling analyses of Amazon review data to develop predictive models using features derived from Amazon reviews that predict Consumer reports product quality.

Socioeconomic Status, Affect, and Health | Longitudinal Analyses, SEM, Survival Analysis, Predictive Modeling

• Designed and analyzed decision-making experiments and conducted machine learning analyses of two public health surveillance studies examining psychological mechanisms linking socioeconomic status to health behaviors.

Employment and Risky Decision-Making | Predictive Modeling, Experimental Design, Transaction Data

• Designed experiments and analyzed large survey study examining relationships between employment and risk-taking behavior during the COVID-19 pandemic. Designed research project to develop predictive models of risky financial behavior in customers of financial services institution.

June 2020 Palo Alto, California

June 2013 Evanston, Illinois

August 2020 - present

Chicago, Illinois

Sept 2014 – June 2020

Palo Alto, California