Application for the NBER Digital Economics and AI Tutorial

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Education

- **PhD in Marketing** 2021 - present
  Marshall School of Business, University of Southern California
- **MSc in Management Information Systems** 2018 - 2020
  Coller School of Management, Tel Aviv University
- **BA in Economics and Management** 2015 - 2018
  School of Economics and Management, Ruppin Academic Center

Selected PhD Courses

- Economic Theory 1
- Economic Theory 2 (Game Theory)
- Probability Theory and Statistics for Economists
- Econometric Methods
- Consumer Behavior and Decision Making
- Strategic and Marketing Mix Models
- Causal Inference Research Methods
- Big Data Econometrics (Machine Learning)
- Marketing Models in Consumer and Business-to-Business Markets
- Advanced Quantitative Models in Marketing
- Consumer Behavior Theory and Research

Research Interests and Methodologies

Consumer mobility; consumer privacy; offline retailing; neighborhood change; causal inference; machine learning; geospatial analysis

Qualifying Exam Committee

Profs. Dina Mayzlin (chair), Lan Luo, Davide Proserpio, Tom Y. Chang, David A. Schweidel

Research in Progress

Together with Profs. Dina Mayzlin and Davide Proserpio, we explore different aspects of neighborhood dynamics that contribute to their transformation and vibrancy. First, we investigate how the presence of multifamily housing in several cities in the US impacts nearby property values, crime rates, and store openings. Utilizing address-level data on multifamily housing constructions, single-family home transactions, crime incidents, and store openings, we employ recent geocoded microdata causal inference techniques to analyze the effects.

Second, we investigate the role of food influencers in driving restaurant visits and increasing exposure to remote neighborhoods. We analyze the effect by leveraging foot traffic data (consumer mobility patterns) and exploiting the timing of restaurant reviews by local publications.

Finally, I explore the use of consumer mobility data to assess the potential for cannibalization within a retailer's store network. Analyzing data from over 5 million devices in Manhattan, NY, I focus on Starbucks' dilemma and develop a predictive model for store closures. I construct a weighted network of the Starbucks stores as nodes, with the edge weights between any two stores reflecting both the overlap between the customers of as well as the distance between the stores. To capture the consumption dynamics in the store network, I compute network centrality measures. Finally, I use these variables to train machine learning models predicting whether each store closed during the 20 months following the observation period. I focus on how the mobility-based network centrality measures contribute to the predictive performance.

I would appreciate an opportunity to participate at the workshop, and I look forward to hearing from you.

Sincerely,
Tal Shoshani