Dingzhe Leng
dingzhe_leng@berkeley.edu | Third-year PhD student in Quantitative Marketing at the Haas school of business

Education

- **University of California, Berkeley** — Berkeley, U.S.
  PhD student in Quantitative Marketing — *September 2022 – present*
- **Shanghai University of Finance and Economics** — Shanghai, China
  Bachelor of Science in Economics; ***GPA : 3.8/4.0 (Rank: 1/50)*** — *September 2016 – June 2020*
- **University of Pennsylvania** — Philadelphia, U.S.
  Exchange Student; ***GPA (junior): 4.0/4.0*** — *August 2018 – May 2019*

Work Experience

- **Northwestern University, Kellogg School of Management** — Evanston, U.S.
  Empirical Research Fellow (Pre-doc), Strategy Department — *November 2020 – August 2022*
  - Full-time research assistant to Prof. Benjamin Friedrich, Kieu-Trang Nguyen, and Quoc-Anh Do
- **University of Pennsylvania** — Philadelphia, U.S.
  Part-time RA, Economics Department — *October 2018 - May 2019*
  - Part-time research assistant to Prof. Amit Gandhi and Aviv Nevo

Research Interest (work in progress)

My current research focuses on platform economics and methodology in analyzing market intervention. One of my projects investigates the Uber-Grab merger in Southeast Asia, using structural models to capture behavioral responses of market participants, and apply advanced methods like recurrent neural networks to approximate dynamic pricing algorithms. Going forward, I aim to expand this work by integrating insights from digital economics and AI, particularly in areas like algorithmic pricing, market design, and the role of AI in shaping competitive dynamics in platform ecosystems.

- **Network Effects and Market Power in Platform Merger: Evidence from Grab-Uber Acquisition in Singapore**
  coauthored with Bingzhao Li and Juin Kuan Chong

  Abstract: Platforms leverage cross-group network effect to reduce matching frictions and improve welfares in each side of a market. The trade-off between network effect and market power has valuable implications for platform growth and anti-trust policy. This study investigates the Uber-Grab merger in south-eastern Asia, which was one of the largest platform merger cases in the world. Using Singapore trip-level data from two platforms, we compare the market in three senarios: pre-merger, post-merger and post-remedy. To better understand the welfare implications and evaluate the merger, we employ a structural model to capture drivers' and riders' responses. Also, we approximate the platforms' dynamic pricing algorithms using a recurrent neural network, enabling us to simulate post-merger counterfactuals under pre-merger pricing conditions. [Preliminary and incomplete, please do not circulate without the authors' permission.]

- **Causal Inference With Endogenous Price Response**
  coauthored with Przemyslaw Jeziorski and Stephan Seiler

  Abstract: We study the estimation of causal treatment effects on demand when treatment is randomly assigned but prices adjust in response to changes in demand. We show that regressions of demand on treatment or on treatment and price lead to biased estimates, with a bias towards zero in both cases. We analyze two approaches to dealing with this bias: (1) via a price instrument that is uncorrelated with treatment and demand-side errors, (2) via controls variables that make residual supply uncorrelated with demand. We also provide a testable sufficient condition under which no bias occurs. [Preliminary and incomplete, please do not circulate without the authors' permission.]

Courses (graduate-level)

- Mathematical Tools for Economics (ECON 204)
- Economic Theory (ECON 201A, 201B)
- Introduction to Econometrics (ECON 240A, 240B; first-year econometrics sequence)
- Econometrics (ECON 241A, 241C; second-year econometrics sequence)
- Industrial Organization (ECON 220A, 220B)
- Buyer Behavior (PHDBA 269A)

- Choice Modeling (PHDBA 269B)
- Marketing Strategy (PHDBA 269C)
- Special Research Topics in Marketing (PHDBA 269D)

Others

- **Programming Skills**: STATA, R, MATLAB, Julia, C++, LaTeX
- **Language**: Mandarin Chinese (Native), English (Proficient)