Kevin Lee

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EDUCATION

University of Chicago, Booth School of Business   **Chicago, IL**
Ph.D. Candidate in Economics   Sep 2018 – Present
- Fields: Marketing, Industrial Organization, Machine Learning
- Committee: Sanjog Misra (chair), Eric Budish, Pradeep Chintagunta, Giovanni Compiani

Harvard University   **Cambridge, MA**
A.B. in Applied Mathematics, Minor in Physics   Aug 2014 – May 2018

TEACHING EXPERIENCE

University of Chicago, Booth School of Business
Generative Thinking (MBA), TA for Prof. Sanjog Misra   Fall 2023
Data Driven Marketing (MBA), TA for Prof. Giovanni Compiani   Winter 2021
Competitive Strategy (MBA), TA for Prof. Eric Budish   Fall 2019, 2020

Harvard University
Optimization (Undergrad), TA for Prof. Yiling Chen   Fall 2017
Honors Intermediate Microeconomics (Undergrad), TA for Prof. Ed Glaeser   Fall 2016, 2017
Functional Programming (Undergrad), TA for Prof. Stuart Shieber   Spring 2017

WORK EXPERIENCE

Planbase (YC S24)
Founding CTO   June 2021-August 2023
- Designed and implemented backend for long-horizon demand forecasting and automated worker scheduling system deployed in 2,000 retail and fast food stores, managing 130,000 workers
- Accepted to YCombinator (~2% acceptance rate) accelerator

WORKING PAPERS

Generative Brand Choice (Job Market Paper, draft)
- Predicted brand preferences for new products by combining choice and text data using structural demand models and novel application of LLMs
- Integrated LLMs with causal inference methods to enable pricing of new products

Causal Alignment: Augmenting Language Models with A/B Tests, *submitted to Marketing Science*
(with Panagiotis Angelopoulos and Sanjog Misra, preprint)
- Trained language models to improve human decision-making using data from A/B tests
- Presented at AI and the Future of Work Conference at Wharton, accepted to SICS 2024 but withdrew due to scheduling conflict, presented at Econometric Society Interdisciplinary Frontiers AI+ML 2024 at Cornell
- Previous title: Value Aligned Large Language Models

WORK IN PROGRESS

Improving Imperfect Decision Makers via State Imputation (with Jack Light, [abstract](#))
- Developed novel reinforcement learning algorithm to improve performance of imperfect decision makers facing multiple competing objectives, with application to automated worker scheduling

Semantic Merger Simulation (with Sanjog Misra, [abstract](#))
- To improve predictions of supply side behavior, collected novel dataset of pre- and post- merger product positions linked to antitrust review documents and trained a model to predict post-merger product positions

Navigating Engagement and Safety Tradeoffs in AI-Optimized Content ([abstract](#))
- Measured the tradeoff between engagement and safety metrics when optimizing unstructured marketing content (e.g. text of an advertisement) using generative AI
- Found that consistency with brand voice is a cost-effective proxy for safety, which is expensive to evaluate, and imposing this constraint while generating content improves the tradeoff

Inferring Latent Need Satisfaction ([abstract](#))
- Estimated the extent to which products satisfy needs by applying causal abstraction to open-ended text transcripts of consumers' stated needs and choice data

ADDITIONAL INFORMATION

Citizenship: U.S.A.
Programming: Python, SQL, R, C++, HTML, CSS, Javascript, React, Docker, AWS
Language: English (Native), Korean (Advanced), Latin (Advanced)

REFERENCES

Sanjog Misra (chair)
Charles H. Kellstadt Professor of Marketing and Applied AI
University of Chicago, Booth School of Business
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Eric Budish
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