

Alex P. Miller

CURRICULUM VITAE

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APPOINTMENTS **USC Marshall School of Business**
Assistant Professor
Department of Marketing
Los Angeles, CA; 2021 – *Present*



EDUCATION **The Wharton School, University of Pennsylvania**
Ph.D., Managerial Science & Applied Economics
Department of Operations, Information, & Decisions
Concentration: Information Systems
Philadelphia, PA; 2015-2021 (Awarded 2022)



University of Oregon, Clark Honors College
B.A., Mathematics, *summa cum laude*
Eugene, OR; 2008-2012



AWARDS & GRANTS

- USC Marshall iORB Multidisciplinary Research Grant
 - The Effects of AI on Internet Search Markets, with Davide Proserpio & Poet Larsen
- Analytics@Wharton Research Grant 2020-2021
- Mack Institute Research Fellowship 2018
- Center on Teaching & Learning Fellowship 2018
- Baker Retail Center Research Grant 2017
- Mack Institute Research Fellowship 2017

RESEARCH

Working Papers:

- Alex P. Miller, “Personalized discount targeting in online retail with technographic data”

- Alex P. Miller & Kartik Hosanagar, “An empirical investigation of p -hacking in e-commerce experiments”
- Alex P. Miller & Kartik Hosanagar, “Meta-analysis of e-commerce A/B testing practices”
- Alex P. Miller & Ron Berman, “Test, Target, & Roll: Optimal explore-first contextual targeting in finite populations”

Publications:

- Alex P. Miller & Kartik Hosanagar, “How Targeted Ads and Dynamic Pricing Can Perpetuate Bias.” 8 November 2019. *Harvard Business Review*. Published in print: Harvard Business Review Special Issue – Winter 2022. [HTML](#)
- Alex P. Miller, “Want Less-Biased Decisions? Use Algorithms.” 26 July 2018. *Harvard Business Review, Digital Article*. Link: [HTML](#)

Book Chapters:

- Kartik Hosanagar & Alex P. Miller. “Who Do We Blame for the Filter Bubble? On the Roles of Math, Data, and People in Algorithmic Social Systems”. In K. Werbach (Ed.), *After the Digital Tornado: Networks, Algorithms, Humanity* (pp. 103-121). Cambridge: Cambridge University Press. 2020. Links: [PDF](#), [HTML](#)

Conference Presentations:

- “reproduce.work: A framework to facilitate cross-platform computational reproducibility in scientific publishing” Workshop on Information Technology & Systems. December 2023. Hyderabad, India (hybrid/remote).
- “Minimax optimal explore-then-commit contextual targeting over finite horizons”. INFORMS Annual Meeting. October 2022. Indianapolis, IN.
- “Personalized discount targeting with causal machine learning”. International Conference on Information Systems (ICIS). December 2020. Virtual Conference. Best Short Paper in Track, 2nd Runner-up.
- “Test, Target, & Roll: Optimal explore-first contextual targeting in finite populations”. Poster Session, Conference on Digital Experimentation (CODE). November 2020. Virtual Conference.
- “A generic framework for estimating optimal discount targeting policies using e-commerce experiments”. Conference on Information Systems & Technology (CIST). November 2020. Virtual Conference.
- “On the estimation and evaluation of personalized pricing policies using e-commerce experiments”. Conference on Statistical Challenges in E-commerce Research (SCECR). Virtual Conference, June 2020.
- “An AI-enabled decision theoretic approach to personalized pricing using online experiments”. Workshop on Experimental & Behavioral Economics in Information Systems (WEBEIS). Los Angeles, CA. May 2020. (*Cancelled due to COVID-19*)
- “Who benefits from personalization? On the distributional effects of personalized pricing in e-commerce”. Winter Conference on Business Analytics (WCBA). March 2020. Snowbird, UT. (*Cancelled due to COVID-19*)
- “A meta-analytic investigation of p -hacking in e-commerce experimentation”. Conference on Information Systems & Technology (CIST). October 2019. Seattle, WA.

- “What is the predictive performance of A/B testing?”. Workshop on Experimental & Behavioral Economics in Information Systems (WEBEIS). May 2019. Minneapolis, MN.
- “How much can firms trust their experiments? An empirical meta-analysis of *p*-hacking in A/B testing”. Workshop on Information Systems & Economics (WISE). December 2018. San Francisco, CA.
- “An Exploratory Meta-Analysis of E-commerce A/B Testing Practices”. Conference on Information Systems & Technology (CIST). November 2018. Phoenix, AZ. Best Student Paper Award
- “On the detection of *p*-hacking in experimental meta-analysis”. Conference on Digital Experimentation (CODE@MIT). October 2018. Cambridge, MA.
- “Fairness & Automated Job Screening”. Wharton-INSEAD Doctoral Consortium. September 2018. Fontainebleau, France.
- “What’s best to test? An empirical meta-analysis of e-commerce A/B testing practices”. Conference on Data Science for Business and Economics at Purdue University. May 2018. West Lafayette, IN.
- “Improving Recommender Diversity with Probabilistic Item Selection”. Workshop on Information Systems & Technologies (WITS). December 2017. Seoul, Korea.
- “What’s best to test? An empirical meta-analysis of e-commerce A/B testing practices”. Conference on Digital Experimentation (CODE@MIT). October 2017. Cambridge, MA.
- “Improving Recommender Diversity with Probabilistic Item Selection”. Conference on Information Systems & Technology (CIST). October 2017. Houston, TX.
- “Exploratory Meta-analysis of E-commerce A/B Testing Practices”. Wharton Innovation Doctoral Symposium (WINDS). October 2017. Philadelphia, PA.
- “Does Data Kill Creativity? A Model of Innovation and Analytics in New Product Development”. Wharton-INSEAD Doctoral Consortium. December 2016. Singapore.

TEACHING & INSTRUCTION

- Faculty Instructor, BUAD307 Marketing Fundamentals (undergraduate marketing core), USC Marshall
 - * 2022: 161 students
 - * 2023: 176 students
- Faculty advisor for USC Gateway Scholars Program: Gabriel Solis, 2023
- Project Developer, A/B Simulation Tool, 2020-2022
 - * Developed interactive, simulation-based web application for instruction on topics A/B testing and reinforcement learning
 - * Project funded by Wharton AI for Business and Analytics@Wharton
 - * Shipped live to thousands of students through the Wharton Interactive platform.
- Penn Center for Teaching & Learning Graduate Fellowship, 2018-2019

- * *Graduate TA Workshop Spring 2019*. Technology & student engagement in the classroom.
- * *Graduate TA Workshop Fall 2018*. Helping students develop skills for success in college
- Instructor, Wharton Ph.D. Tech Camp, Summer 2017, 2019
 - * Developed curriculum for 8-session course on basic programming, data collection, and text processing
 - * <https://alxm.im/tech-camp>
- TA, AI for Business, Enabling Technologies (UG, MBA, EMBA)

**SERVICE &
ADMIN.**

Reviewer: *Management Science, Marketing Science, Information Systems Research, Manufacturing & Service Operations Management, Management Information Systems Quarterly, Journal of Quantitative Description*, International Conference on Information Systems, Wharton Innovation Doctoral Symposium
Conference Chair: Wharton Innovation Doctoral Symposium (WINDS) 2018

**INDUSTRY
EXPERIENCE**

<i>Full Stack Developer, Data Scientist</i> – SmartyPal	April 2014 – August 2015
<i>Digital Marketing Specialist</i> – Adpearance	October 2012 – April 2014
<i>Analytics Consultant</i>	<i>Off and on again</i>