

Alex P. Miller

CURRICULUM VITAE

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The Wharton School, University of Pennsylvania
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EDUCATION

The Wharton School, University of Pennsylvania
Doctoral Candidate in Information Systems & Technology
Department of Operations, Information, & Decisions
Advisor: Kartik Hosanagar
Philadelphia, PA; 2015 – Present



Clark Honors College, University of Oregon
Bachelor of Arts, Mathematics, *summa cum laude*, ΦBK
Thesis: Generalized Multivariable Alexander Invariants
Eugene, OR; 2008 – 2012



RESEARCH INTERESTS

digital experimentation, causal inference, machine learning, algorithmic decision making, and online recommendation systems

RESEARCH

Working Papers:

- Improving Recommender Diversity with Probabilistic Item Selection
- An Empirical Analysis of E-commerce A/B Testing Practices

Conference Presentations

- **Alex P. Miller** & Kartik Hosanagar. “How much can firms trust their experiments? An empirical meta-analysis of p -hacking in A/B testing”. Workshop in Information Systems & Economics (WISE). December 2018. San Francisco, CA.
- **Alex P. Miller** & Kartik Hosanagar. “An Exploratory Meta-Analysis of E-commerce A/B Testing Practices”. Conference on Information Systems Technology (CIST). November 2018. Phoenix, AZ.
- **Alex P. Miller** & Kartik Hosanagar. “On the Detection of p -Hacking in Experimental Meta-Analysis: A Non-Parametric Procedure for Analyzing Discontinuities in Probability Densities”. Conference on Digital Experimentation (CODE@MIT). October 2018. Cambridge, MA.

- **Alex P. Miller** & Kartik Hosanagar. “Fairness & Automated Job Screening”. Wharton-INSEAD Doctoral Consortium. September 2018. Fontainebleau, France.
- **Alex P. Miller** & Kartik Hosanagar. “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.
- Kartik Hosanagar & **Alex P. Miller**. “Improving Recommender Diversity with Probabilistic Item Selection”. Workshop on Information Systems & Technologies (WITS). December 2017. Seoul, Korea.
- **Alex P. Miller** & Kartik Hosanagar. “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.
- Kartik Hosanagar & **Alex P. Miller**. “Improving Recommender Diversity with Probabilistic Item Selection”. Conference on Information Systems & Technology (CIST). October 2017. Houston, TX.
- **Alex P. Miller** & Kartik Hosanagar. “Exploratory Meta-analysis of E-commerce A/B Testing Practices”. Wharton Innovation Doctoral Symposium (WINDS). October 2017. Philadelphia, PA.
- **Alex P. Miller** “Does Data Kill Creativity? A Model of Innovation and Analytics in New Product Development”. Wharton-INSEAD Doctoral Consortium. December 2016. Singapore.

Book Chapters

- Kartik Hosanagar & **Alex P. Miller** “Who do we blame for the filter bubble? On the interaction between people, data, and algorithms in online social systems”. Book Chapter. *After the Digital Tornado*. Forthcoming, 2018.

HONORS & AWARDS

- Graduate
 - Mack Institute Research Fellowship, 2018
 - Center on Teaching and Learning Graduate Fellowship, 2018
 - Best Predictive Model, Applied Machine Learning Conference, 2018
 - Baker Retail Center Research Grant, 2017
 - Mack Institute Research Fellowship, 2017
- Undergraduate
 - Oregon Six (Phi Beta Kappa), 2012
 - Math Department Honors, UO Math, 2012
 - Distinguished Honors Research Thesis Defense, UO CHC, 2012
 - Stevenson Prize, UO Math, 2012
 - Undergraduate Research Fellowship, UO CTL, 2011-2012
 - Curtis Scholarship, UO Math, 2011

SERVICE & LEADERSHIP

Conference Chair: Wharton Innovation Doctoral Symposium (WINDS) 2018
Reviewer: International Conference on Information Systems (ICIS) 2017, Wharton Innovation Doctoral Symposium (WINDS) 2017-2018
Web Chair: Penn Open Labs 2017-2018

TEACHING EXPERIENCE

- Center on Teaching and Learning Graduate Fellowship, 2018-2019
- Instructor, Wharton Ph.D. Tech Camp, Summer 2017
- TA, Enabling Technologies OIDD 344/662, Spring 2017, Fall 2018
 - Data Science Workshop for UG/MBA, October 2018
 - <https://github.com/alexmill/machine-learning-wharton>
- Mathematics Tutor, University of Oregon College of Education, 2009-2012

WRITING

- “Want Less-Biased Decisions? Use Algorithms.”. 26 July 2018. *Harvard Business Review, Digital Article*. Link: <https://hbr.org/2018/07/want-less-biased-decisions-use-algorithms>
- “Regulations like GDPR will make Big Tech stronger”. 24 July 2018. *Quartz Ideas*. Link: <https://qz.com/1332215/regulations-like-gdpr-will-make-big-tech-stronger/>
- “What good are business schools anyway?”. 22 June 2018. *Medium Featured Story*. Link: <https://medium.com/s/story/what-good-are-business-schools-anyway-f5c399d916ef>
- “Why do we care so much about explainable algorithms? In defense of the black box”. 11 January 2018. *Towards Data Science*. Link: <https://towardsdatascience.com/why-do-we-care-so-much-about-explainable-algorithms-in-defense-of-the-black-box-d9e3bc01e0dc>
- “Are machines biased or are we biased against machines?”. 24 May 2016. *Towards Data Science*. Link: <https://towardsdatascience.com/are-machines-biased-or-are-we-biased-against-machines-17982310152b>

INDUSTRY EXPERIENCE

<i>Analytics Consultant</i> – Adpearance	April 2015 – April 2017
<i>Full Stack Developer, Data Scientist</i> – SmartyPal	April 2014 – August 2015
<i>Digital Marketing Specialist</i> – Adpearance	October 2012 – April 2014