ALEX P. MILLER
CURRICULUM VITAE

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EDUCATION

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

Clark Honors College, University of Oregon
Bachelor of Arts, Mathematics, *summa cum laude*, ΦΒΚ
Eugene, OR; 2008 – 2012

RESEARCH

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

Conference Presentations
- "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.

Publications
- "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.

**AWARDS &
GRANTS**

- *Baker Retail Center Research Grant*, 2017
- *Mack Institute Research Fellowship*, 2017

**TEACHING
EXPERIENCE**

- Instructor, Wharton Ph.D. Tech Camp, Summer 2017
- TA, Enabling Technologies OIDD 344/662, Spring 2017

WRITING

- "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`

**SERVICE &
LEADERSHIP**

- Web Chair, Penn Open Labs
- Communications Chair, WINDS 2018 Organizing Committee

**INDUSTRY
EXPERIENCE**

04/2014–08/2015 *Full Stack Developer, Data Scientist*
`SmartyPal`, Philadelphia, PA

- Co-authored successful Small Business Innovation Research grant from the National Science Foundation, resulting in nearly $900,000 of non-dilutive funding to the company
- Won the 2015 MongoDB Innovation Award in Education
- Developed logic for personalized adaptive learning platform based on item response theory and multi-armed bandit techniques

10/2012–04/2014 *Digital Marketing Specialist*
`Adpearance`, Portland, OR (by telecommute)

- Initiated, developed, and managed two core service offerings–A/B testing and Automotive SEO–the latter of which received certification from Chrysler LLC's digital marketing program