# **Ryan Dew**

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### **EMPLOYMENT**

The Wharton School, University of Pennsylvania 2018 - Present Assistant Professor of Marketing

# **EDUCATION**

2019 Ph.D., Marketing, Columbia University

Dissertation: Machine Learning Methods for Data-Driven Decisions

Advisor: Asim Ansari

Committee: Olivier Toubia, Oded Netzer, Kinshuk Jerath, David Blei

2016 M.Phil., Marketing, Columbia University

2013 B.A., Mathematics, University of Pennsylvania

Academic honors: Summa cum laude, Phi Beta Kappa

#### RESEARCH OVERVIEW

- Topics: customer relationship management, customer analytics, data-driven design, visualization, choice modeling
- Methods: Bayesian statistics and econometrics, Bayesian nonparametrics, unstructured data, scalable inference, computational methods, machine learning

#### PEER-REVIEWED PUBLICATIONS

1. **Dew, Ryan** and Asim Ansari (2018), "Bayesian Nonparametric Customer Base Analysis with Model-based Visualizations," *Marketing Science*.

Finalist, 2019 Frank M. Bass Award

2. **Dew, Ryan**, Asim Ansari, and Yang Li (2020), "Modeling Dynamic Heterogeneity Using Gaussian Processes," *Journal of Marketing Research*.

Finalist, 2020 Paul Green Award

3. **Dew, Ryan**, Asim Ansari, and Olivier Toubia (2022), "Letting Logos Speak: Leveraging Multiview Representation Learning for Data-Driven Logo Design," *Marketing Science*.

Winner, 2022 Frank M. Bass Award; Finalist, John D.C. Little Award

4. **Dew, Ryan**, Eva Ascarza, Oded Netzer, and Nachum Sicherman (2023), "Detecting Routines: Applications to Ridesharing CRM," *Journal of Marketing Research*.

5. Tian, Zijun\*, **Ryan Dew**\*, and Raghu Iyengar (2024), "Mega or Micro? Influencer Selection Using Follower Elasticity," *Journal of Marketing Research*.

### WORKING PAPERS

6. **Dew, Ryan**, "Preference Measurement with Unstructured Data, with Applications to Adaptive Customer Onboarding Surveys."

Available online at http://ssrn.com/abstract\_id=4641773

7. **Dew, Ryan** and Yuhao Fan, "Correlated Dynamics in Marketing Sensitivities" *Available online at* http://ssrn.com/abstract=3832290

# RESEARCH IN PROGRESS (NO WORKING PAPER)

- Dew, Ryan\*, Nicolas Padilla\*, and Anya Schetkina\*, "Identification of Nonlinearities and Dynamics in Marketing Mix Models"
- Dew, Ryan\* and Nicolas Padilla\*, "Unified Marketing Measurement and Optimal Test Timing"
- Kim, Mingyung and Ryan Dew, "Graph-based Methods for Inferring Market Structure"
- Tian, Zijun, Ryan Dew, and Raghu Iyengar, "How Do Influencers Learn From Feedback?"
- Fan, Yuhao, **Ryan Dew**, Eric T. Bradlow, and Peter S. Fader, "Bayesian Analysis of A/B Tests with Partially Observed Assignment"

# **TEACHING**

Full courses:

Wharton Data and Analysis for Marketing Decisions (Undergraduate and MBA)

Years taught: 2019-2023

Awarded the Excellence in Teaching Award in all years taught.

Average instructor rating: 3.6/4

(Historical average for the course: 2.6/4)

Empirical Models in Marketing, Part B (Doctoral)

Years taught: 2023

#### Guest lectures:

- Bayesian Nonparametrics (Ph.D. seminar, The University of Michigan, 2022)
- Representation Learning (Ph.D. seminar, Wharton, 2021)
- Machine Learning and Text Analysis (Ph.D. seminar, Wharton, 2019)

<sup>\*</sup>Asterisks indicate equal first authorship.

## **DOCTORAL SUPERVISION**

#### Advisor or Co-advisor:

• Yuhao (Jeremy) Fan, The Wharton School, University of Pennsylvania, 2021

Dissertation: Marketing Applications of Bayesian Nonparametrics

Placement: Data Scientist at URBN

• **Zijun Tian**, Economics Department, University of Pennsylvania, 2023 Dissertation: *Empirical and Theoretical Investigations in Influencer Marketing* Placement: Washington University in St. Louis, Marketing Department

#### Committee Member:

- Mingyung Kim, The Wharton School, University of Pennsylvania (Anticipated graduation in 2024)
- **Henrique Laurino Dos Santos**, The Wharton School, University of Pennsylvania (Anticipated graduation in 2025)

# GRANTS, HONORS, AND AWARDS

- MSI Young Scholar, 2023
- ISMS Early Career Scholar, 2023
- Winner, Frank M. Bass Award, 2022
- Finalist, John D.C. Little Award, 2022
- Wharton Teaching Excellence Award, 2021
- Finalist, Paul Green Award, 2020
- Wharton Teaching Excellence Award, 2020
- Grant from Analytics at Wharton (\$17,000), 2020
- Finalist, Frank M. Bass Award, 2019
- Wharton Teaching Excellence Award, 2019
- Winner, ISMS Doctoral Dissertation Proposal Competition, 2018
- Winner, American Statistical Association's Marketing Section's Dissertation Award, 2018
- Honorable Mention, MSI Alden G. Clayton Doctoral Dissertation Proposal Competition, 2018
- AMA-Sheth Foundation Doctoral Consortium Fellow, 2017
- ISMS Doctoral Consortium Fellow, 2017
- Amanda and Harold J. Rudolph Fellowship, Columbia Business School, 2016
- Deming Center Doctoral Fellowship, Columbia Business School, 2016
- ISMS Doctoral Consortium Fellow, 2016
- Quantitative Marketing and Structural Econometrics Workshop, 2015
- ISMS Doctoral Consortium Fellow, 2015
- Adobe Digital Marketing Research Award (with Kinshuk Jerath and Miklos Sarvary), 2014

## INVITED TALKS

- Korea University Business School (Marketing Camp), May 2024 (Upcoming)
- Monash University (Marketing Department), April 2024 (Upcoming)
- Santa Clara University (Leavey), April 2024 (Upcoming)
- Purdue University (Krannert), March 2024
- University of Southern California (Quant Marketing Brown Bag), Feb 2024
- Marketing Modelers, Oct 2023
- Northwestern University (Kellogg), Jan 2023
- University of Delaware, Sep 2022
- ETH Zurich, July 2022
- Frankfurt School, AI and Business Workshop, July 2022
- Boston University (Questrom, IS), May 2022
- University of Chicago (Booth), May 2022
- Hong Kong University of Science and Technology, Feb 2022
- University of Colorado, Boulder (Leeds), Nov 2021
- University of Texas, Austin (McCombs), Nov 2021
- City University of Hong Kong, Nov 2021
- Marketing Modelers, Feb 2021
- Stanford University (GSB), Jan 2021
- Temple University (Global Center on Big Data and Mobile Analytics), Nov 2020
- Rutgers University (RBS), Oct 2020
- Temple University (Global Center on Big Data and Mobile Analytics), Sep 2019
- University of Maryland (Smith), Nov 2018
- Drexel University (Lebow), Oct 2018
- Reykjavik University (School of Business), Oct 2018
- Cheung Kong Graduate School of Business Research Camp, July 2018
- University of Pennsylvania (Wharton), Nov 2017
- Cornell University (Johnson), Oct 2017
- University of Colorado Boulder (Leeds), Oct 2017
- New York University (Stern), Oct 2017
- Yale University (SOM), Oct 2017
- Carnegie Mellon University (Tepper), Oct 2017
- University of Rochester (Simon), Oct 2017
- University of Michigan (Ross), Oct 2017
- University of British Columbia (Sauder), Sep 2017
- University of Pittsburgh (Katz), Sep 2017
- Dartmouth College (Tuck), Sep 2017
- Georgetown University (McDonough), Sep 2017
- Duke University (Fuqua), Sep 2017
- The Ohio State University (Fisher), Aug 2017

## CONFERENCE PRESENTATIONS

- MSI Summit, Los Angeles, CA, February 2024
  Panel Discussion: Challenges in Media Measurement
- Conference on Artificial Intelligence, Machine Learning, and Business Analytics, Philadelphia, PA, December 2023.
  - Invited keynote speaker: "Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding"
- 12th Triennial Choice Symposium, Fontainebleau, France, August 2023
  Session Co-chair, Probabilistic Machine Learning for Scalable, Flexible, and Interpretable Models of Choice
- ISMS Marketing Science, Miami, FL, June 2023 "Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding"
- Theory and Practice in Marketing (TPM), Lausanne, Switzerland, May 2023
  "Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding"
- MSI Analytics Conference, Philadelphia, PA, May 2023
  "Mega or Micro? Influencer Selection Using Follower Elasticity"
- Joint Statistical Meeting, Washington D.C., August 2022
  "Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding"
- ISMS Marketing Science, Virtual, June 2022 "Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding"
- Machine Learning for Consumers and Markets Workshop, KDD 2021, Virtual, August 2021
   "Adaptive Preference Measurement with Unstructured Data, with Applications to Customer
   On-boarding"
- Theory and Practice in Marketing (TPM), Virtual, June 2021 "Detecting Routines in Ride-sharing: Implications for Customer Management."
- ISMS Marketing Science, Virtual, June 2021
  "Adaptive Preference Measurement with Unstructured Data, with Applications to Customer On-boarding"
- Bass FORMS Conference, UTD (Virtual), Feb 2021
  "Letting Logos Speak: Leveraging Multiview Representation Learning for Data-Driven Logo Design"
- Marketing Science, Virtual, June 2020
  "Detecting Routines in Ride-sharing: Implications for Customer Management."
- Four Schools Conference (Columbia, NYU, Wharton, Yale), Virtual, May 2020
  "Letting Logos Speak: Leveraging Multiview Representation Learning for Data-Driven Logo Design"
- Conference on Artificial Intelligence, Machine Learning, and Business Analytics, Philadelphia, PA, December 2019. Invited keynote speaker.
  - "Letting Logos Speak: Machine Learning Methods for Data-Driven Logo Design."
- ISMS Marketing Science, Rome, Italy, June 2019
  "Letting Logos Speak: Machine Learning Methods for Data-Driven Logo Design."

- ISMS Marketing Science, Philadelphia, PA, June 2018 "Letting Logos Speak: Machine Learning Methods for Data-Driven Logo Design."
- EMAC, Glasgow, Scotland, May 2018
  "Letting Logos Speak: Machine Learning Methods for Data-Driven Logo Design."
- ISMS Marketing Science, Los Angeles, CA, June 2017
  "Dynamic Heterogeneity: A Bayesian Nonparametric Approach"
- Marketing Dynamics, Hamburg, Germany, July 2016
  "Gaussian Process Dynamic Choice Models"
- AMA Advanced Research Techniques Forum, Boston, MA, June 2016
  "A Bayesian Semiparametric Framework for Understanding and Predicting Customer Base Dynamics"
- ISMS Marketing Science, Shanghai, China, June 2016 "Gaussian Process Dynamic Choice Models"
- Data Science Day (Poster Session), Columbia University, April 2016 "Model-based Dashboards for Customer Analytics"
- ISMS Marketing Science, Baltimore, MD, June 2015 "Bayesian Semiparametric Modeling of Cohort Lifecycles"

# SCHOLARLY SERVICE

- Marketing Science Editorial Review Board, 2022-2024
- Ad hoc reviewer, Management Science, Journal of Marketing Research, Journal of Marketing, Journal of Consumer Research.
- American Statistical Association, Council of Sections Representative, 2020-2022
- Co-organizer, Bayesian Computation in Marketing Interschool Reading Group, 2020-Present

#### **OTHER**

#### Languages:

- Computer: Python, R (+ Stan, PyTorch)
- Human: English (native), Mandarin (intermediate), Spanish (basic)

Citizenship: United States

Last update: March 13, 2024