

Easton Huch

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An updated CV and working papers are available at my personal website: eastonhuch.com

Research Interests

I am a statistician and causal inference methodologist by training. Most of my previous and current research involves developing **advanced causal inference** methods, especially in **dynamic treatment regimes**.

Previous projects in this area include developing (1) data integration methods for micro-randomized trials, (2) a robust contextual bandit algorithm for longitudinal data based on the debiased machine learning (DML) framework, and (3) a randomization-based framework for Bayesian causal inference.

I have performed professional work in several areas of quantitative marketing, including **online experimentation, advertising effectiveness, customer lifetime value modeling, and general business analytics**. In applying to academic positions in marketing, my objective is to begin applying my expertise and methods within these and other substantive areas in marketing. In particular, I have an active research project with Zillow Group in the area of A/B testing methodology. I am also adding a marketing application (a field experiment involving restaurant menus) to my job market paper and will include this application during my job talk.

Education

- 2021 – Present **Ph.D. in Statistics**, University of Michigan (expected August 2025)
- Thesis Title: *Robust Bayesian Inference via Discrepancy Functions With Applications to Mobile Health*
 - Co-Advisors: Professors Fred Feinberg and Walter Dempsey
 - Committe Members: Johann Gagnon-Bartsch and Colin Fogarty
 - Certificate: Graduate Certificate in Entrepreneurship and Innovation
 - GPA: 4.00
- 2017 – 2019 **M.S. in Statistics**, Brigham Young University
- Thesis Title: *ideq: An R Package for Dynamic Spatio-temporal Models*
 - Professor Robert Richardson
 - GPA: 4.00
- 2012 – 2019 **B.S. in Economics & Statistics**, Brigham Young University
- Minor: Mathematics
 - GPA: 3.97

Research Publications

Under Review

- Huch, E**, W Dempsey, I Nahum-Shani, L Potter, and D Wetter (2024). Data integration methods for micro-randomized trials. (*Revise & resubmit*) *Biometrics*. [🌐 https://arxiv.org/abs/2403.13934](https://arxiv.org/abs/2403.13934).
- Huch, E**, J Shi, M Abbott, J Golbus, A Moreno, and W Dempsey (2023). A Robust Mixed-Effects Bandit Algorithm for Assessing Mobile Health Interventions. (*Under review*) *NeurIPS 2024*. [🌐 https://arxiv.org/abs/2312.06403](https://arxiv.org/abs/2312.06403).

In Progress*

*I expect to submit these projects for review in the next 12 months. Several of these projects have working papers that can be downloaded from my website: eastonhuch.com.

- 1 **Huch, E**, W Dempsey, and F Feinberg (2025). Bayesian permutation inference: Likelihood-free Bayesian inference of regression parameters via permutation distributions.
- 2 **Huch, E**, W Dempsey, and F Feinberg (2024). Robust Bayesian inference of causal effects via randomization distributions. (*Anticipated*) *Journal of the Royal Statistical Society – Series B*.
- 3 **Huch, E**, M Ferlic, C Berrett, and K Sellers (2024). Computationally efficient models for count data with varying levels of dispersion. (*Anticipated*) *Management Science*.

Software

- 1 **Huch, E** and R Richardson (2019). ideq: An R Package for Dynamic Spatio-temporal Models.
<https://github.com/eastonhuch/ideq>.





Teaching

- 2023 **Data Science Mentor**, Veritas AI
- Mentor high-school students taking an online AI course
 - Help students with practice programming problems and final project
- 2023 – 2024 **Data Science Mentor**, Great Learning
- Mentored working professionals taking an online course in data science and business analytics
 - Maintained an overall rating of 4.89/5.00
- 2021 – 2022 **Graduate Student Instructor**, Department of Statistics, University of Michigan
- Led labs, created course content, and assisted with grading
 - Courses: Statistics and Artificial Intelligence (STATS 315), Data Mining and Statistical Learning (STATS 415), & Intro to Statistics and Data Analysis (STATS 250)
- 2017 – 2018 **Teaching Assistant**, Department of Statistics, Brigham Young University
- Assisted students with data analysis projects
 - Course: Applied SAS Programming (Stat 224)

Professional Experience

- 2024 **Applied Scientist Intern**, Zillow Group (3 mos)
- Summer intern on the experimentation platform team
 - Leading a methodological research project in the area of A/B testing
 - We plan to publish the method and results in a top-tier marketing journal, such as *Marketing Science* (pending legal approval)
- 2023 – Present **Freelance Data Scientist**, Self-employed (1 yr 8 mos)
- Work with various clients on applied data science problems in the technology, education, and advertising industries
 - Maintain 100% job success and 4.9/5.0 rating on completed projects
 - Previous projects include measuring the effectiveness of promotions, regression analysis on sales call data, clustering job applicants, and data analytics infrastructure improvements
 - Public profile: [upwork.com/freelancers/~015bb6b43d3d54fff4](https://www.upwork.com/freelancers/~015bb6b43d3d54fff4)





Professional Experience (continued)

- 2022  **Data Science Intern**, Recursion Pharmaceuticals (4 mos)
- Worked on the drug discovery inference team
 - Analyzed effectiveness of RNA guide design
 - Quantified uncertainty in AI-derived biological metrics
- 2017 – 2021  **Data Scientist**, Lucid Software (3 yrs, 8 mos)
- Forecasted account growth to optimize sales quotas and territories for 200+ reps
 - Implemented customer lifetime value models, resulting in \$1M+ in savings annually
 - Advised on online experimentation (A/B testing) and developed Bayesian testing framework
- 2016 – 2017  **Product Specialist**, Qualtrics (1 yr 1 mo)
- Provided customer service for survey tool users
 - Assisted with client data analysis and Portuguese translation projects
- 2015 – 2016  **Financial Aid Assistant**, Brigham Young University (7 mos)
- Administered federal aid and off-campus scholarships
 - Performed data entry of financial information



Awards

- 2024  **Best Poster Presentation**, MSSISS 2024, University of Michigan
For presenting *Data integration methods for micro-randomized trials*
- 2019  **Magna Cum Laude**, Brigham Young University
Awarded to top-5% of undergraduates at graduation
- 2018 – 2019  **Department Scholarship**, Statistics Department, Brigham Young University
Full-tuition academic scholarship for M.S. in Statistics
- 2015 – 2018  **Dean's List**, College of FHSS, Brigham Young University
Awarded to top-5% of students within the College of Family, Home and Social Sciences (FHSS)
- 2012 – 2018  **Heritage Scholarship**, Brigham Young University
Full-tuition academic scholarship for B.S. in Economics & Statistics
- 2010  **Eagle Scout**, Boy Scouts of America

Presentations

- 2024  **INFORMS 2024**, Seattle, Washington
Will deliver 15-minute oral presentation titled *Robust Bayesian Inference of Causal Effects via Randomization Distributions*
-  **JSM 2024**, Portland, Oregon
Will deliver 15-minute oral presentation titled *Data Integration Methods for Micro-randomized Trials*
-  **MSSISS 2024**, University of Michigan
Presented poster titled *Data Integration Methods for Micro-randomized Trials*
-  **CATIE 2024**, University of Michigan
Presented module titled *SMARTs with Repeated Outcome Measurements* to education researchers




Presentations (continued)

- 2023  **MSSISS 2023**, University of Michigan
Delivered 15-minute oral presentation titled *Bayesian Randomization Inference: A Distribution-free Approach to Causal Inference*
- 2019  **Master's Thesis Defense**, Brigham Young University
Successfully defended master's thesis: *ideq: An R Package for Dynamic Spatio-temporal Models*

Volunteer Experience

- 2024  **Volunteer for CATIE 2024**, d3 Center, University of Michigan
Assist in planning and executing CATIE 2024, a conference to train education researchers in the use of adaptive interventions (e.g., SMARTs)
- 2023 – 2024  **Executive Chair**, PhD Council, Statistics Department, University of Michigan
Lead student-run PhD council, which assists the department with recruiting, computing resources, social event planning, and office-space logistics
- 2013 – 2015  **Volunteer Representative**, Nonprofit Organization in São Paulo, Brazil
Participated in service projects, managed finances for volunteer organization, trained and led other volunteers, and learned Brazilian Portuguese
- 2012 – 2013  **NCAA Division 1 Athlete**, Brigham Young University
Walk on athlete for the cross country and track teams, specializing in the 1500m/mile run

Skills

- Languages  Native English, advanced Portuguese, intermediate Spanish
- Programming  Python, TensorFlow, Pytorch, R, Bash, SQL, Scala, C++, \LaTeX
- Software Tools  Unix, git, Docker, make, Stan, dbt, Tableau, Domo, Snowflake, Postgres, Apache Spark

References

Available upon request