



Courtney Paulson, Ph.D.

Assistant Professor of Statistics, University of New Hampshire

Former Graduate Director, MS in Business Analytics (Southern Utah University)

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Peter T. Paul College of Business and Economics

Department of Decision Sciences

Room 320

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Academic Positions

Assistant Professor of Statistics

August 2022—Present

Peter T. Paul College of Business and Economics, University of New Hampshire

Selected courses taught: Business Statistics, Data-Driven Decisions (primary software: R and Python)

Graduate Program Director, Master of Science in Business Analytics

July 2019—August 2022

Assistant Professor of Analytics

Dixie L. Leavitt School of Business, Southern Utah University

Selected courses taught: Data Preprocessing and Visualization, Data Analytics (I and II), Capstone Research, Marketing Analytics, Big Data for Business (primary software: R, Python, and SQL)

Assistant Professor of Business Analytics

August 2016—June 2019

Robert H. Smith School of Business, University of Maryland

Selected courses taught: Data Mining and Predictive Analytics, Linear Models (primary software: R and Python)

Software Proficiencies

- R (including RStudio, RMarkdown, R Shiny Apps, etc.)
- Python (including Jupyter Notebook/Lab, Spyder, Anaconda package suite)
- Microsoft Excel (as well as other Microsoft Office applications)
- Tableau for Data Visualization (and other visualization dashboarding, e.g. PowerBI)
- Intermediate proficiency in HTML, JMP, SAS, Stata, C/C++, Java, SQL

Education

Ph.D., Business Administration—Statistics

2016

Marshall School of Business, University of Southern California, Los Angeles, CA

Dissertation: “Optimizing Penalized and Constrained Loss Functions with Applications to Large-Scale Internet Media Selection”

BS, Statistics (Minors: Mathematics, Economics)

2011

University of Central Florida, Orlando, FL

Research Publications

- Paulson, C., Agha, N., Berri, D., & Brook, S. (n.d.). Exploitation in College Sports: No Longer just a “Man’s Game”. *Journal of Sports Economics*. (accepted; in-press)
- Croft, C., Paulson, C., Stokowski, S., Berri, D., & Mondello, M. (2023). The player makes the coach: Exploring player development among Division I basketball coaches. *International Journal of Sports Science & Coaching*, 18(3), 695-704. doi:10.1177/17479541221146384
- Paulson, C., Darvin, L., & Berri, D. (2023). Head Coach Gender and Player Performance in NCAA Softball. *Journal of Economics, Race, and Policy*, 1-14. doi:10.1007/s41996-023-00121-3
- Paulson, C., Hindman, L. C., Walker, N. A., & Berri, D. (2022). Firing Discrimination of Coaches in the Most ‘Inclusive’ League?: Evidence from the Women’s National Basketball Association. *International Journal of Sport Management*, 24(4), 256-265.
- Lemkin DL, Stryckman B, Klein JE, Custer JW, Bame W, Maranda L, Wood KE, Paulson C, Dezman ZDW (2021). Integrating a safety smart list into the electronic health record decreases intensive care unit length of stay and cost. *Journal of Critical Care*. 57:246-252.
- Gareth M. James, Courtney Paulson & Paat Rusmevichientong (2020). Penalized and Constrained Optimization: An Application to High-Dimensional Website Advertising. *Journal of the American Statistical Association*. 115:529, 107-122.
- Courtney Paulson, Lan Luo, and Gareth M. James (2018) Efficient Large-Scale Internet Media Selection Optimization for Online Display Advertising. *Journal of Marketing Research*: August 2018, Vol. 55, No. 4, pp. 489-506.
- Madni, A., Paulson, C., Ordoukhanian, E., Zender, F., and K. Chang. “Proficiency Curves: Course Design, Assessment, and Findings”. Technical Report. 2015 (Boeing, Inc.)
- Madni, A., Richey, M., Paulson, C., and M. Spraragen. “Model-Based Optimization of Learning Curves: Implications for Business and Government”. 25th Annual INCOSE International Symposium (selected for presentation and publication in IS2015). 2015.

Developed Software Packages

Courtney Paulson (2018). ELMSO: Implementation of the Efficient Large-Scale Online Algorithm.

R package version 1.0.0 and 1.0.1 <https://CRAN.R-project.org/package=ELMSO>

Courtney Paulson (2019). PACLasso: Penalized and Constrained Lasso Optimization. R package version

1.0.0. <https://CRAN.R-project.org/package=PACLasso>

Awards and Honors

- 2020-2021 Beta Gamma Sigma “Professor of the Year” for the Dixie L. Leavitt School of Business
- 2020-2021 Teacher of the Year for the Dixie L. Leavitt School of Business
- 2020-2021 SUU Professor of the Year Finalist
- 2019 Don Lehmann Award Winner (Best Dissertation-Based Article, *JMR or JM*)
- 2019 Paul E. Green Award Finalist (Best Paper, *JMR*)
- 2017, 2018, and 2019 Distinguished Professor, Smith School of Business (UMD)
- 2016 Order of Arete (USC graduate student top award)
- 2015 ISMS Doctoral Dissertation Award Winner
- USC Award for Excellence in Teaching
- National Student Travel Award by ASA Statistics in Marketing Section (for 2014 JSM conference)
- First place Team Leader, IBM Watson EngagingU Business Analytics Competition (interschool)
- Pi Mu Epsilon Mathematical Society 2011 Honoree
- National Merit Finalist and Corporate Scholar
- Kari Backes Math and Science Scholar
- Community Foundation Scholar

Invited Data Analytics Tutorials

Data Analytics Tutorial/Workshop, Conference on Systems Engineering Research (CSER) October 2020
Invited by CSER Co-Chair Dr. Azad Madni

Healthcare Data Analytics Boot Camp for Professionals May 2019
Invited by the University of Maryland Center for Health Information & Decision
Systems (CHIDS) as part of EARN Maryland grant

Healthcare Data Analytics Boot Camp for Professionals April 2019
Invited by the University of Maryland Center for Health Information & Decision
Systems (CHIDS) as part of EARN Maryland grant

Data Analytics Tutorial/Workshop, Conference on Systems Engineering Research (CSER) March 2017
Invited by CSER Co-Chair Dr. Azad Madni

Invited Presentations

“Reweighting data in penalized optimization models: an approach to maximize subgroup fairness”
Upcoming, Computational and Mathematical Statistics, Berlin, Germany

“Evaluating Mental Health Care from a Natural Language Perspective: How Consistent is Your
Teletherapist?” Oct. 2022
2022 INFORMS Annual Meeting

“Time Series Anomaly Detection in the Age of Big Data: Matching Data Processes to
Algorithms” June 2022
Quality and Productivity Research Conference (QPRC)

“Efficient Large-Scale Internet Media Selection Optimization for Online Display Advertising” Aug. 2019
Paul E. Green Award Finalist Session (Lan Luo presenting)
American Marketing Association Summer Meeting

“Relieving Emergency Room Overcrowding Through Data Modeling” Nov 2018
2018 INFORMS Annual Meeting

“West Baltimore Mobile Integrated Healthcare: Using Community Paramedicine to Relieve
City Pressures” Dec 2017
International Indian Statistical Association (IISA) Conference

“Optimal Large-Scale Internet Media Selection” June 2016
2016 INFORMS Society of Marketing Science (ISMS) Conference
Invited by ISMS as part of fulfillment of ISMS Doctoral Dissertation Award

“Optimal Large-Scale Internet Media Selection,” University of California, Irvine October 2015
Invited by ASA President-Elect Dr. Jessica Utts as part of Department of Statistics Seminar Series

“Optimal Internet Media Selection,” Joint Statistical Meetings August 2014
Invited by American Statistical Association’s Marketing Section as part of national Student Travel
Award selection

Additional Presentations and Discussions

- SDSS, June 2022: “Time Series Anomaly Detection in the Age of Big Data: Matching Data Generation Processes with Algorithms” (G.T. Ozer presenting)
- ART Forum, June 2016: “Optimal Large-Scale Internet Media Selection”
- ISMS Marketing Science Conference, June 2016: “Optimal Large-Scale Internet Media Selection”
- Joint Statistical Meetings, August 2015: "Optimal Large-Scale Internet Media Selection"
- 25th Annual INCOSE International Symposium, July 2015: “Model-Based Optimization of Learning Curves”
- INFORMS Marketing Science, June 2014: "Optimal Internet Media Selection"
- 2010 Embry-Riddle Mathematics Conference: “Statistical Analysis of Light Intensity Observations to Determine Areas of Constant Properties in Saturn's Rings”

Professional Service

Professional Service:

- Editorial Board, *INFORMS Transaction on Education Journal*
- Editorial Board (forthcoming), *Humanities & Social Sciences Communications Journal*
- Curriculum Coordinator, Business Statistics (UNH Paul College)
- Hackathon Judge (EasyHacks Hackathon, HackTable2020)
- Journal Referee (Advances in Data Analysis and Classification, Communications in Statistics—Simulation and Computation, IEEE Signal Processing Letters, INFORMS Journal of Computing)
- Judge, Central Utah Sterling Scholars (School of Business Representative, 2020)

SUU Service:

- Co-Chair, School of Business Diversity and Inclusion Committee
 - Diversity, Equity and Inclusion in the Workplace Certificate Completion (USF Office of Corporate Training and Professional Education)
 - 8-week course
- Faculty Mentor (Chandrayee Chatterjee, Qian Zhang, Katie Hill)
- Member, Data Analytics Committee (cross-school committee with Mathematics, Computer Science)
- Member, Analytics Curriculum Committee (School of Business)
- Chair, Business Analytics Hiring Committee
- Hiring Search Committees (Marketing, Operations Management, Finance, Management)

UMD Service:

- UMD Business Analytics Faculty Advisor, Smith in the City NYC Trip (2017, 2018, and 2019)
- Member, UMD Operations Management and Business Analytics Undergraduate Committee
- Member, UMD Dissertation Committee for OM/MS PhD Mustafa Sahin

Courtney Paulson

- Member, UMD Committee for Ranking of Statistics Journals
- Invited Judge, USC Undergraduate Research Symposium