

Brook Luers

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Department of Statistics
311 West Hall
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EDUCATION

Ph.D., Statistics (in progress)

University of Michigan, Ann Arbor, MI

Passed qualifying exams, May 2016

M.S., Statistics, May 2015

University of Wisconsin-Madison, Madison, WI

GPA: 3.78 out of 4.0

B.A., Mathematics, May 2012

Oberlin College, Oberlin, OH

GPA: 3.81 out of 4.0

PROFESSIONAL/RESEARCH EXPERIENCE

University of Michigan, Ann Arbor, MI

Graduate Research Assistant

Large-scale observational data

Spring 2017–present

Supervised by Kerby Shedden, Ph.D.

Characterizing inter-driver variability in braking behavior with one-pass dimension reduction techniques applied to naturalistic driving data. Statistical methods and software for streaming data analytics.

Sequential decision making in mobile health

June 2016–June 2017

Supervised by Susan Murphy, Ph.D.

Performed data management and statistical analysis for the results of a micro-randomized trial of HeartSteps, an mHealth intervention to increase physical activity among cardiac rehabilitation patients. Developed a time-varying standardized effect size for the micro-randomized trial design.

The University of Wisconsin-Madison, Madison, WI

Project Assistant

Spring 2015

Created realistic data sets and example research problems for a new Master's-level statistical methods and data analysis course.

Epic Systems Corporation, Verona, WI

Business Intelligence Developer

July 2012–June 2013

Developed reporting content and utilities for hospital admissions data using Intersystems Caché, SQL, and Crystal Reports. Supported Epic customers and staff using Epic reporting tools.

American Institutes for Research, Washington, D.C.
Research Assistant

Summer 2011

Supported staff at the National Center for Education Statistics working on the Integrated Postsecondary Education Data System (IPEDS). Developed web tutorials for the IPEDS data collection system. Fulfilled data requests in SAS using IPEDS data.

PUBLICATIONS

Luers, B., Klasnja, P., and Murphy, S.A. Standardized effect sizes for preventive mobile health interventions in micro-randomized trials. (revised and resubmitted)

Klasnja, P., Smith, S., Seewald, N.J., Lee, A., Hall, K., **Luers, B.**, Hekler, E.B. and Murphy, S.A. Effectiveness of contextually-tailored suggestions for physical activity: A micro-randomized trial of HeartSteps. (submitted)

PRESENTATIONS

Luers, B. and Shedden, K. Fingerprinting individual driving behavior with vehicle kinematics data and dimension reduction regression. Michigan Institute for Data Science Annual Symposium, Ann Arbor, MI. October 2017. (poster)

NeCamp, T., Yoo, H., **Luers, B.**, Cho, A., Seewald, N., Klasnja, P., and Murphy, S.A. HeartSteps: A Case Study in Trial Design and Evaluation of Mobile Health Interventions. Michigan Institute for Data Science Annual Symposium, Ann Arbor, MI. November 2016. (poster)

TEACHING EXPERIENCE

University of Michigan, Ann Arbor, MI
Department of Statistics

Teaching Assistant	
Introduction to Statistical Computing	Fall 2017
Teaching Assistant	
Introduction to Probability and Statistics	Spring 2016
Teaching Assistant	
Introduction to Statistics and Data Analysis	Fall 2015

University of Wisconsin-Madison, Madison, WI
Department of Statistics

Instructor	
Introduction to Statistical Methods	Fall 2014
Teaching Assistant	
Introduction to Statistical Methods	Spring 2014
Teaching Assistant	
Introductory Statistics for Engineers	Fall 2013

Summer Institute for Training in Biostatistics, Madison, WI
University of Wisconsin-Madison

Teaching Assistant

Introduction to Biostatistics, Biostatistics Practicum

Summer 2014

Oberlin College, Oberlin OH
Department of Mathematics

Calculus Tutor

Fall 2009–Spring 2010, Spring 2011

Statistics Grader

Spring 2012

HONORS AND AWARDS

Honorable Mention, Outstanding Graduate Student Instructor, University of Michigan (Spring 2016)

Member, Phi Beta Kappa Society (May 2012)

Junior Fellow, Joint Program in Survey Methodology (Summer 2011)

SKILLS

Statistical modeling and inference

Data analysis and visualization

Programming languages: R, Python, Go, C++, C, SQL, Intersystems Caché

Typesetting and productivity: \LaTeX , Microsoft Office, Windows and Unix-like operating systems