Anna D. Peterson

Contact information

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Education

Ph.D., Statistics, Iowa State University, 2011
- Thesis Topic: Separability index for clustering and classification
- Advisors: Arka Ghosh and Ranjan Maitra

M.S., Statistics, Iowa State University, 2008
- Creative Component: Generation of Random Gaussian Mixtures
- Advisors: Arka Ghosh and Ranjan Maitra

B.A., Mathematics and Economics, St. Olaf College, 2005
- Graduated Summa Cum Laude
- Phi Beta Kappa

Professional Experience

Associate Teaching Professor, Department of Statistics at Iowa State University — 2019-Present

Senior Lecturer, Department of Statistics at Iowa State University — 2017-2019

Lecturer, Department of Statistics at Iowa State University — 2010-2017

Teaching Assistant, Department of Statistics at Iowa State University — 2008-2010

AES Statistical Consultant, Department of Statistics at Iowa State University — 2006-2008

Lab Teaching Assistant, Department of Statistics at Iowa State University — 2005-2006

Actuarial Intern, Thrivent Financial — 2004

Awards

Award	Year
Early Achievement in Teaching Award, Iowa State University	2017
ISU Wakonse Fellow	2012
Teaching Excellence Award, Iowa State University	2010
Dan Mowrey Consulting Excellence Award	2009
Recipient, NSF VIGRE Fellowship, Iowa State University	2005-2007
Recipient, $5,000 Eli Lilly Scholarship, Iowa State University	2005
Summa Cum Laude, St. Olaf College	2005

Refereed Journal Publications

Curley, B.**,** and **Peterson, A**. (in press). A Fresh Shot at Statistics in the Classroom: Three Perspectives Using World Cup Soccer Player Data. *Journal of Statistics and Data Science Education.* DOI: 10.1080/26939169.2021.2008283

Peterson, A. D., and Ziegler, L. (2021). Building your Multiple Regression Model With LEGO Bricks. *Journal of Statistics and Data Science Education.* 29(3):297-303. DOI: 10.1080/26939169.2021.1946450

Peterson, A. D., Ghosh, A. P., and Maitra, R. (2018). Merging *K*-means with hierarchical clustering for identifying general-shaped groups. *Stat.* 7: e4172. DOI:10.1002/sta4.172.

Kong, K., Campbell, C. G., Wagner, K., **Peterson, A. D.**, and Lanningham-Foster, L. (2014). Impact of a walking intervention during pregnancy on post-partum weight retention and infant anthropometric outcomes. *Journal of Developmental Origins of Health and Disease.* 5(3):259-67. DOI: 10.1017/S2040174414000117

Kong, K. L., Campbell, C. G., Foster, R. C., **Peterson, A. D.,** and Lanningham-Foster, L. (2014). A Pilot Walking Program Promotes Moderate Physical Activity during Pregnancy. *Medicine and Science in Sports and Exercise.* 46(3):462-71. DOI: 10.1249/MSS.0000000000000141

Wong D. M., Vo D. T., Alcott C. J., **Peterson A. D.**, Sponseller B. A., and Hsu W. H. (2009). Baseline plasma cortisol and ACTH concentrations and response to low-dose ACTH stimulation testing in ill foals. *J Am Vet Med Assoc.* 234(1):126-132. DOI: 10.2460/javma.234.1.126.

Wong D. M., Vo D. T., Alcott C. J., Stewart A. J.**, Peterson A. D.**, Sponseller B. A., and Hsu W. H. (2009). Adrenocorticotropic hormone stimulation tests in healthy foals from birth to 12 weeks of age. *Can J Vet Res.* 73(1):65-72.

Book Reviews

Peterson, A. D. (2010). Business Statistics: A First Course by Sharpe, N. R., De Veaux R.D. and Velleman, P. F., *The American Statistician.* Vol. 65(1):63-64.

Online Web Development

Peterson, A. D., and Bramer L., (2012). Intro Statistics Video Tutorials: A free online resource developed to supplement classroom lectures for introductory statistics classes.

Presentations

Genschel, U., Kasper, K., **Peterson, A. D.**, Ziegler L., Preparing graduate student instructors to use cooperative learning activities in the classroom, United States Conference on Teaching Statistics (USCOTS), Penn State University, May 2019.

Teaching statistics to students on a technology overload, Joint Statistical Meeting, San Diego California, July 2012.

A Separability Index for Classification Data, Iowa State University, October 2010.

Identifying general-shaped clusters using the k-means algorithm, Joint Statistical Meeting, Vancouver, August 2010.

A Separability Index for Classification Data, Joint Statistical Meeting, Washington DC, August 2009.

Funding

Peterson A. D. (2017- 2018), Las-sponsored Development and Delivery of Blended Stat 326: Introduction to Business Statistics II. $6000.

Peterson A. D. (2011), Learning Tools for Stat 226. LASCAC Instructional Technology ISU. $29,531.

Posters

Curley, B. and **Peterson, A. D.,** A Fresh Shot at Statistics in the Classroom: Three Perspectives using World Cup Soccer Player Data, United States conference on Teaching Statistics, Virtual, June 2019.

Ziegler, L., and **Peterson, A. D.,** Building your Multiple Regression Model with Bricks, United States Conference on Teaching Statistics, State College, May 2017.

A Separability Index for Higher-dimensional Classification Problems and its Applications, Iowa State conference celebrating 75 years of statistics, Iowa State University, June 2009.

STATCOM at Iowa State: Experiences and Projects in the First Year, Joint Statistical Meeting, Denver Colorado, August 2008.

Consulting

Campbell, C. Department of Food Science and Human Nutrition at Iowa State University. The goal of this study is to create a scoring mechanism for the use of providing a recommendation regarding the type and amount of physical activity and the association with weight gain or loss, 2013-2017.

Julander, K. Department of Nutritional Sciences at Iowa State University, 2013 - 2014.

Kong, K. L., Campbell, C., and Lanningham-Foster, L. Department of Food Science and Human Nutrition at Iowa State University. Three related projects all focusing on a randomized-controlled study on pregnant women, 2012 – 2014.

Campbell, C., and Blomme, C. Department of Food Science and Human Nutrition at Iowa State University, 2012 – 2013.

Teaching

Stat 101 - Lab assistant for Principles of Statistics

Stat 104 - Introduction to Statistics & coordination

Stat 226 - Introduction to Business Statistics I & coordination

Stat 326 - Introduction to Business Statistics II & coordination

Stat 341 - Introduction to the Theory of Probability and Statistics I

Stat 342 - Introduction to the Theory of Probability and Statistics II

Stat 301 - Intermediate Statistical Concept and Methods

Stat 401 - Statistics Methods for Research

Stat 490 - Independent Study

Stat 526 - Applied Statistical Methods

University Service

Chair of Departmental Social Committee	2013-2022
Undergraduate Committee	2010-2021
Student/Faculty Committee on Instruction	2010-2020
University Committee: Members in Course	2017-2019
Department Search Committee for Department Chair	2018-2019
Undergraduate Statistics Club Faculty Advisor	2011-2017
Search Committee for Lecturer	2014-2015
Search Committee for Lecturer	2013-2014
Faculty Advisor for Undergraduate graphics competition	2011
Project manager for the Ames Public Library STATCOM survey	2008-2010
Executive Committee for STATCOM at Iowa State University	2008-2010

Additional Professional Experience

Table Leader, Advanced Placement Statistics Reading	2020-2021
Reader, Advanced Placement Statistics Reading	2018-2019

Reviewing work

Journal of Statistics Education	Feb 2013