

Andrew J. Sage

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EMPLOYMENT

Lawrence University, Appleton, WI
Assistant Professor of Statistics 2018-

EDUCATION

Iowa State University, Ames, IA
Degree: Ph.D. in Statistics 2018
Dissertation Title: *Random forest robustness, variable importance and tree aggregation*
Advisors: Ulrike Genschel, Dan Nettleton

Iowa State University, Ames, IA
Degree: M.S. in Statistics 2015
Master's Project: *Predicting student retention in STEM: A random forest based approach*
Advisor: Dan Nettleton

Miami University, Oxford, OH
Degree: M.S. in Mathematics 2013
Master's Project: *Calculation of cell bounds for contingency tables from rounded conditional frequencies*
Advisor: Stephen Wright

The College of Wooster, Wooster, OH
Degree: B.A. in Mathematics 2007
Summa Cum Laude

TEACHING/MENTORING EXPERIENCE

Iowa State University, Ames, IA
Graduate teaching assistant, Department of Statistics
Courses taught as instructor:

- Stat 231: probability and statistics for engineering (3 times) 2017-18
- Stat 330: probability and statistics for computer science F2016
- Stat 104: introductory statistics F2014

- Graduate mentor for Cameron Stocker 's Freshman Honors Project S2017
- Lab instructor for survey sampling techniques S2014

Miami University, Oxford, OH

Graduate teaching assistant, Department of Mathematics

Courses taught as instructor:

- Math 151: calculus I S2013
- Math 123: precalculus (3 times) 2011-12

Bloomfield High School, North Bloomfield, OH

High school mathematics teacher

2007-11

Ashtabula County Joint Vocational School, Jefferson, OH

High school mathematics summer school teacher

2007-08

AWARDS/RECOGNITION

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| ▪ Teaching Excellence Award for Graduate Students, Iowa State Univ. | 2018 |
| ▪ Jebe Fellowship, Iowa State Univ. | 2013 |
| ▪ Effective Graduate Teaching Award, Dept. of Mathematics, Miami Univ. | 2013 |
| ▪ SIAM Graduate Student Award, Dept. of Mathematics, Miami Univ. | 2013 |
| ▪ William H. Wilson Prize in Mathematics, College of Wooster | 2007 |
| ▪ William Edgar Hoffman Jr. Prize in Education, College of Wooster | 2007 |
| ▪ Whitney E. Stoneburner Prize in Education, College of Wooster | 2007 |
| ▪ Phi Beta Kappa | 2006 |

PEER-REVIEWED PUBLICATIONS

Sage A.J., Cervato, C., Genchel, U., Ogilvie, C., (2018). Combining academics and social engagement: a major-specific early alert method to counter student attrition in STEM. *Journal of College Student Retention: Research, Theory, and Practice*. 1521025118780502

Sage, A. J., & Wright, S. E. (2016). Obtaining cell counts for contingency tables from rounded conditional frequencies. *European Journal of Operational Research*, 250(1), 91-100.

SUBMITTED WORKS

Sage, A. J., Genschel, U., Nettleton, D. (2017). Tree Aggregation for Random Forest Class Probability Estimation. (under review).

PRESENTATIONS

“A Robust Residual Based Approach to Random Forest Regression”

Contributed poster, Conference on Predictive Inference and its Applications, Ames IA, May 7, 2018

“A Robust Residual Based Approach to Random Forest Regression”

Contributed speed talk and poster, Joint Statistical Meetings, Baltimore MD, August 3, 2017

“Random Forest Variable Importance”

Research Talk for Dordt College Statistical Genetics and Biostatistics Summer Research group visit to Iowa State University, Ames IA, June 29, 2017

“Impact of Working with Real Data on Perceptions of the Importance of Statistical Inference”

Reviewed Poster, US Conference on Teaching Statistics, State College PA, May 19, 2017

“Retention of Students in STEM: An Early Alert Project”

Iowa State Advising Summit, April 28, 2017

“A Walk Through a Random Forest”

Invited Talk, Dordt College, Sioux Center, IA, March 23, 2017

“Predicting Student Retention in STEM Majors”

Joint Statistical Meetings, Seattle WA, contributed talk, August 10, 2015

“Adaptive Survey Design”

Survey Working Group, Iowa State University, March 14, 2014

“The Factoring Likelihood Approach for Maximum Likelihood Estimation in Cases of Missing Data”

Survey Working Group, Iowa State University, November 20, 2013

“The Effect of Rounding on Disclosure in Contingency Tables”

ASA Iowa Chapter Conference, Ames IA, poster presentation, November 1, 2013

CONFERENCES / PROFESSIONAL DEVELOPMENT

- Preparing to Teach Workshop, Vancouver, British Columbia, July 28, 2018
- Conference on Predictive Inference and its Applications, Ames IA, 2018
- Preparing Future Faculty Fellow, Iowa State University, 2016-18

- Team-Based Learning Workshop, Center for Excellence in Learning & Teaching, Iowa State University, Spring 2018
- Project LEA/RN Beginners Learning Group, Iowa State University, 2017-18
- Project LEA/RN Workshop, Iowa State University, May 9-10, 2017
- Joint Statistical Meetings, Baltimore, MD, 2017
- US Conference on Teaching Statistics, State College PA, 2017
- Joint Statistical Meetings, Seattle WA, 2015
- American Statistical Association Member