
CONTACT INFORMATION

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Department of Statistics
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EDUCATION

- 2016 - Current **Doctor of Philosophy, Statistics**
Iowa State University, Ames, IA
Major Professor: Dr. Heike Hofmann
Research Topic: Diagnostics for Random Forest Models
Expected Completion: December 2020
- 2013 - 2015 **Master of Science, Statistics**
University of Wisconsin, Madison, WI
- 2009 - 2013 **Bachelor of Arts, Mathematics**
Lawrence University, Appleton, WI
Graduated Magna Cum Laude
Senior Capstone: "An Explanation of Double-Error-Correcting BCH Codes"
- Study Abroad**
- 2012 University of Granada, Centro de Lenguas Modernas
2010 Lawrence London Centre

AWARDS AND HONORS

- 2018 **ISU Department of Statistics Dan Mowrey Consulting Excellence Award**
Awarded in recognition of outstanding contributions in the area of statistical consulting while working toward a graduate degree.
- 2017 **ISU Department of Statistics Award for Experiential Development**
Presented to a student for excellent performance in multiple statistical efforts as part of the graduate program.
- 2009 - 2013 **Lawrence University Deans List**
2009 - 2013 **Lawrence University Richard Warch Presidential Scholarship**
2012 - 2012 **Mortar Board Honor Society**
2010 - 2011 **Lambda Sigma National Honor Society**

POSITIONS HELD

- 2018 - Current **Senior Statistical Consultant**
Agriculture Experiment Station, Iowa State University
Mentored and trained new consultants. Helped the group adviser make administrative decisions. Oversaw organizational tasks for the consulting group. Continued with responsibilities from being a statistical consultant.
- 2016 - 2018 **Statistical Consultant**

Agriculture Experiment Station, Iowa State University

Provided statistical support on research projects for graduate students, faculty, and staff mostly from the college of agriculture and life sciences but also from the colleges of engineering, human sciences, liberal arts and sciences, and veterinary medicine. Advised clients on study designs, statistical analysis methods, and statistical language use in writing in many areas of statistics including exploratory analyses, linear (and mixed) models, generalized linear (and mixed) models, data visualization, community analyses, dose response curves, predictive modeling, multivariate analyses, and Bayesian models. Assisted with the implementation of the analyses in R, SAS, or JMP.

2016 **Course Instructor**

Iowa State University

Lectured for an introductory statistics course for non-statistics majors. Prepared and graded exams.

2015 **Data Analyst**

Research Administration Office, Lawrence University

Performed statistical analyses using SPSS to analyze data from a study to compare the academic success and mood towards the university from freshman to sophomore years.

2015 **Lecturer of Mathematics**

Lawrence University

Taught an introductory statistics course for non-statistics majors. Organized the curriculum. Prepared and graded homework and exams.

2013 - 2015 **Teaching Assistant**

University of Wisconsin, Madison

Led discussions for several undergraduate and graduate level introductory statistics courses. Graded homework and exams. Held office hours and worked in the statistics help room.

2014 - 2015 **Academic Mentor for Minority and First Generation Undergraduates**

Center for Academic Excellence, University of Wisconsin, Madison

Mentored minority and first generation undergraduate students enrolled in statistics courses. Met weekly throughout the semester with individuals or small groups to teach and review statistical concepts from class. Discussed strategies for academic success with students.

Data Collection Assistant

2014 - 2015 *Research Administration Office, Lawrence University*

Assisted with the data collection for a study on the evaluation of warning lights installed at a busy crosswalk on the university campus. Used Tracker software to determine the deceleration rate of vehicles from videos taken of cars approaching the crosswalk.

RESEARCH INTERESTS

Model Assessment, Data Visualization, Random Forest Models, Interpretation of Machine Learning Algorithms, Generalized Linear Mixed Models, R Package Development

CONTRIBUTED POSTERS

Goode, K. and Hofmann, H. “Using LIME to Interpret a Random Forest Model with an Application to Bullet Matching Data”, Iowa State University Graduate and Professional Student Research Conference, Contributed Poster. April 2019.

Goode, K. and Rey, K. “Introducing ggResidpanel: An R Package for Easy Visualization of Residuals”. Kansas State University Conference on Applied Statistics in Agriculture. Contributed Poster. May 2018.

SOFTWARE

ggResidpanel R package for easy visualization of model diagnostic plots. Developed with Katie Rey (<https://goodekat.github.io/ggResidpanel/>)

TEACHING EXPERIENCE

Seminar Leader	2018		Predictive plant phenomics graduate student bootcamp on statistics at Iowa State University. Topics included statistical concepts of randomization, confidence intervals, and design of experiments.
Instructor	2016	STAT 101	Introduction to statistics at Iowa State University. Topics included summary statistics, visualizations, normal distribution, hypothesis testing, confidence intervals, and JMP.
	2015	MATH 107	Elementary statistics at Lawrence University. Topics included summary statistics, visualizations, randomization tests, bootstrap, normal distribution, hypothesis testing, confidence intervals, and R.
Teaching Assistant	2015	BMI 552	Regression methods for population health graduate students at UW Madison. Topics included simple and multiple linear regression, logistic regression, survival analysis, and SAS.
	2014	BMI 551	Introduction to biostatistics for population health graduate students. Topics included summary statistics, visualizations, probability, normal distributions, hypothesis testing, confidence intervals, and R.
	2014	STAT 301	Introduction to statistical methods for non-statistics majors at UW Madison. Topics included summary statistics, visualizations, probability, normal distributions, hypothesis testing, and confidence intervals.
	2014	STAT 302	Accelerated introduction to statistical methods for statistics undergraduate majors at UW Madison. Topics included summary statistics, visualizations, randomization tests, bootstrap, normal distribution, hypothesis testing, confidence intervals, and R.
	2013	STAT 371	Introductory applied statistics for the life sciences at UW Madison. Topics included summary statistics, visualizations, probability, normal distributions, hypothesis testing, confidence intervals, and R.

Academic Mentor	2014 - 2015	Mentor for minority and first generation undergraduate students in introductory statistics courses at the UW Madison.
Statistics Tutor	2014 - 2015	Tutor for undergraduate students in introductory statistics courses at the UW Madison.

SERVICE

2018 - Current	Student representative to ISU statistics departmental faculty meetings
2018 - Current	STATCOM (Statistics in the Community) member
2017 - 2019	ISU STATers (Statistics Graduate Student Organization) recycling coordinator
2017 - 2018	STATCOM (Statistics in the Community) treasurer

COMPUTING SKILLS

Working Knowledge: GitHub, JMP, \LaTeX , R, R Markdown, SAS, Shiny, SPSS
 Basic Knowledge: C, Mathematica, SQL