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## CONTACT INFORMATION

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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, Spain  
2010    Lawrence London Centre, England

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## 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 (teaching and consulting) 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**

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## 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 the same statistical consultant responsibilities.
- 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, and 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 of undergraduates 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*

Prepared and led discussions for a variety of undergraduate introductory statistics courses and taught labs for population health graduate student 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 review statistical concepts from class and make the material approachable. Discussed and encouraged strategies for academic success.

**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

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

CONTRIBUTED POSTERS

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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

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**ggResidpanel** R package for easy visualization of model diagnostic plots. Produces panels of diagnostic plots for one one, panels of plots for comparing multiple models, and interactive versions of the plots. Developed with Katie Rey. Source code can be found at <https://goodekat.github.io/ggResidpanel/>.

## TEACHING EXPERIENCE

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

## SERVICE

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2018 - Current	Graduate student representative to ISU statistics department faculty meetings
2018 - Current	Member of StatCom (Statistics in the Community)
2017 - 2019	Recycling coordinator for ISU STATers (Statistics Graduate Student Organization)
2017 - 2018	Treasurer for StatCom

## COMPUTING SKILLS

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Working Knowledge: GitHub, JMP,  $\text{\LaTeX}$ , R, R Markdown, SAS, Shiny, SPSS  
 Basic Knowledge: C, Mathematica