## Karsten Tait Maurer

CONTACT

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**EDUCATION** 

Ph.D., Statistics, 2015 M.S., Statistics, 2011 B.A., Statistics & History, 2009 Iowa State University Iowa State University University of Minnesota Morris

## **EXPERIENCE**

Assistant Professor of Statistics at Miami University (Oxford OH) 2015 - Present

- *Instructor* Teaching/developing courses in data visualization, machine learning, statistical programming, statistical computing, and design of experiments
- Advisor Directed 6 undergraduate and 10 graduate research projects.

  Also mentor team for client projects in Center for Analytics and Data Science.
- Researcher 11 publications, 10 international conference presentations See kmaurer.github.io/CV for publication, presentation and project details

Summer Research Fellow at the Air Force Research Lab (Rome NY) 2016 & 2018

• Researcher – Developing machine learning algorithms for weighted ensemble classification and active learning for detecting classifier confidence deficiencies.

## RELEVANT SKILLSETS

Statistical Thinking – Formal education provides a strong foundation and rigorous statistical lens through which data problems are approached.

Programming – 11 years of heavy professional programming in R. Deep understanding of base R, data structures, functional programming, debugging, profiling, and R package development and maintainance. Extensive experience with common R packages: dplyr, tidyr, ggplot2, caret, plotly, shiny, RMySQL, etc. Additional, but less intensive, programming experience in SAS, Python, Stata and SPSS.

Machine Learning – Published and ongoing research developing machine learning algorithms. Professor of a machine learning course for senior undergraduates and masters students, covering broad range of supervised and unsupervised learning methods.

Data Visualization – Efficient and skilled with designing visualizations in R to support a data-centric narrative. Taught and developed curriculum for a data visualization course in R, and currently extending research on lineup plots for visual inference.

SQL – Construction of shiny web app as a teaching tool for students to take random samples from large SQL databases. Additionally taught standard SQL quuries in through PROC SQL in SAS-based programming course.

Technical and Non-Technical Communication – Faculty career has engrained skills for communicating challenging ideas to diverse audiences: students, data experts, administrators, and collaborators outside of data science.

Collaborative – Reputation as an applied statistician with strong data science skills and a broad curiosity for problem-solving has opened opportunity for contribution to many collaborative, inter-disciplinary research projects.

## HONORS & AWARDS

1st Place Award for Short Paper on Machine Learning at ICMLA 2019

Mentor to student teams winning 2nd & 3rd Place ASA Data Expo

Armstrong Endowed Professorship – collaborative grant in interactive media

Air Force Research Lab [\$47000 in Grants] – Research Fellowships

2016 & 2018

2nd Place ASA Data Expo - Teammates: Adam Loy, Dave Osthus

2019