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 teams 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 maintenance. Extensive experience with common R packages: `dplyr`, `tidyr`, `devtools`, `ggplot2`, `caret`, `plotly`, `shiny`, `RMySQL`, etc. Additional 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 queries in through PROC SQL in SAS-based programming course.

Technical and Non-Technical Communication – Faculty career has ingrained 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	2019
Mentor to student teams winning 2nd & 3rd Place ASA Data Expo	2019
Armstrong Endowed Professorship – collaborative grant in interactive media	2019
Air Force Research Lab [$47000 in Grants] – Research Fellowships	2016 & 2018
2nd Place ASA Data Expo - Teammates: Adam Loy, Dave Osthus	2013