Ryan Miller,
Assistant Professor of Statistics

Grinnell College

CONTACT INFORMATION	Noyce 2217, Grinnell College, 1116 8th Avenue, Grinnell, IA 50112-1690	phone: (815) 307-2803 email: millerry@grinnell.edu website: remiller1450.github.io

EDUCATION

University of Iowa, Iowa City, IA

Ph.D., Biostatistics, August 2018
- Thesis: *Marginal False Discovery Rate Approaches to Inference on Penalized Likelihood Models*
- Advisor: Patrick Breheny, Ph.D

M.S., Biostatistics, May 2015
- Preceptorship Topic: *Analyzing the Geographic Dispersion of Accidents Involving Animal Strikes in Iowa using a Bayesian Spatio-temporal Model*
- Advisor: Jake Oleson, Ph.D

Augustana College, Rock Island, IL

B.A., Mathematics and Mathematics Education (Double Major), May 2011
- Graduated *Cum Laude*
- Advisor: Stacey Rodman, Ph.D

TEACHING EXPERIENCE

Grinnell College, Department of Mathematics and Statistics

STA 209 - Applied Statistics	Fall 2018

University of Iowa, Department of Biostatistics

BIOS 4120 - Introduction to Biostatistics (Instructor)	Summer 2014
BIOS 4120 - Introduction to Biostatistics (Teaching Assistant)	Spring 2014
BIOS 4120 - Introduction to Biostatistics (Teaching Assistant)	Fall 2013

Pawnee High School, Pawnee IL

Calculus I	2011-2012
Algebra II with Trig	2011-2012
Advanced Algebra	2011-2012
Algebra I	2011-2012

RESEARCH INTERESTS

High-dimesional data analysis, penalized likelihood models, false discovery rate approaches to multiple testing, survival data analysis, causal inference, statistics in sports

RESEARCH EXPERIENCE

Research Assistant   January 2017 to August 2018
Iowa Public Policy Center,
University of Iowa
Supervisor: Elizabeth Momany, Ph.D
Role: Data analysis as part of the State Innovation Model (SIM) for Iowa healthcare

Research Assistant   August 2014 to January 2017
Iowa Public Policy Center,
University of Iowa
Supervisor: Michelle Reyes, M.S.
Role: Analyses and data management involving the Iowa Department of Transportation (IDOT) crash records

CONSULTING EXPERIENCE	**Consultant** National Advanced Driving Simulator Organization, University of Iowa Supervisor: Michelle Reyes, M.S. Role: Statistical support on projects involving teen driving research	June 2017 to present

PUBLICATIONS

1. **Miller, R**, and Breheny, P "Marginal False Discovery Rate Control for Penalized Likelihood Methods" (In submission, link: https://arxiv.org/abs/1710.11459)

2. **Miller, R**, and Breheny, P "Local False Discovery Rates for lasso Regression." (In preparation)

SKILLS

Computer Software:
- R, SAS, Latex

Statistical Skills:
- Parametric and non-parametric hypothesis testing, linear regression, GLMs, Cox proportional hazards models, random and mixed effects models, propensity score matching, multiple imputation, sample size and power calculations, bayesian hierarchal models, high-dimensional data analysis, machine learning, data visualization

HONORS AND RECOGNITIONS

- William R. Clarke Graduate Teaching Assistant award recipient 2018
- University of Iowa Outstanding Teaching Assistant nominee 2013-14
- Elected into Pi Mu Epsilon honor society, Augustana College chapter 2010
- Four year letterman in Cross Country, Track at Augustana College 2007-2011

REFERENCES

Patrick Breheny
Associate Professor
Department of Biostatistics
University of Iowa

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