Ryan Miller

CONTACT INFORMATION	Noyce 2217, 1116 8th Avenue, Grinnell, IA 50112-1690	(815) 307-2803 millerry@grinnell.edu

EDUCATION

University of Iowa, Iowa City, IA

Ph.D., Biostatistics, August 2018
- Thesis Topic: *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

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

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)

TEACHING EXPERIENCE	Assistant Professor	Fall 2018 - Present
	MAT209 - Applied Statistics	
	Department of Mathematics and Statistics,	
	Grinnell College	
	Instructor	Summer 2014
	BIOS 4120 - Introduction to Biostatistics	
	Supervisor: Joe Cavanaugh, Ph.D	
	Department of Biostatistics,	
	University of Iowa	
	Teaching Assistant	Fall 2013, Spring 2014
	BIOS 4120 - Introduction to Biostatistics	
	Supervisors: Jeff Dawson, Ph.D, Patrick Breheny, Ph.D	
	Department of Biostatistics,	
	University of Iowa	
	High School Teacher	2011-2012
	Algebra I, Algebra II with Trig, Advanced Algebra, Calculus I	
	Pawnee High School, Pawnee IL	

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	Phone: (319) 384-1584
Department of Biostatistics	E-mail: patrick-breheny@uiowa.edu
University of Iowa	http://myweb.uiowa.edu/pbreheny/

Joe Cavanaugh

Department Executive Officer, Professor	Phone: (319) 384-1602
Department of Biostatistics	E-mail: joe-cavanaugh@uiowa.edu
University of Iowa	http://myweb.uiowa.edu/cavaaugh/

Michelle Reyes

Research Associate	Phone: (319) 335-9563
National Advanced Driving Simulator	E-mail: michelle-reyes@uiowa.edu
University of Iowa	