

**Ryan Miller,**  
**Assistant Professor of Statistics**

**Xavier University**

CONTACT INFORMATION	Xavier University, 3800 Victory Parkway, Cincinnati, OH, 45207	phone: (815) 307-2803 email: millerr33@xavier.edu website: remiller1450.github.io
EDUCATION	<b>University of Iowa</b> , Iowa City, IA Ph.D., Biostatistics, August 2018 <ul style="list-style-type: none"><li>• Thesis: <i>Marginal False Discovery Rate Approaches to Inference on Penalized Likelihood Models</i></li><li>• Advisor: Patrick Breheny, Ph.D</li></ul> M.S., Biostatistics, May 2015 <ul style="list-style-type: none"><li>• Preceptorship: <i>Analyzing the Geographic Dispersion of Accidents Involving Animal Strikes in Iowa using a Bayesian Spatio-temporal Model</i></li><li>• Advisor: Jake Oleson, Ph.D</li></ul> <b>Augustana College</b> , Rock Island, IL B.A., Mathematics and Mathematics Education (Double Major), May 2011 <ul style="list-style-type: none"><li>• Graduated <i>Cum Laude</i></li><li>• Advisor: Stacey Rodman, Ph.D</li></ul>	
PROFESSIONAL EXPERIENCE	<b>Assistant Professor of Statistics</b> Department of Mathematics Xavier University Role: Developed and taught courses in statistics, mentored and advised undergraduate students, performed statistical research	2020 to Present
	<b>Visiting Assistant Professor of Statistics</b> Department of Mathematics and Statistics Grinnell College Role: Developed and taught courses in statistics and data science, mentored undergraduate research projects, performed statistical research	2018 to 2020
	<b>Research Assistant</b> Iowa Public Policy Center, University of Iowa Supervisor: Elizabeth Momany, Ph.D Role: Statistical analysis as part of the State Innovation Model (SIM) for Iowa healthcare	2017 to 2018
	<b>Research Assistant</b> Iowa Public Policy Center University of Iowa Supervisor: Michelle Reyes, M.S. Role: Statistical analyses and data management on projects involving the Iowa Department of Transportation (IDOT) crash records database	2014 to 2017
	<b>Consultant</b> National Advanced Driving Simulator Organization University of Iowa Supervisor: Michelle Reyes, M.S. Role: Statistical support on projects involving teen driving research	2017 to 2018

TEACHING EXPERIENCE	Xavier University, Department of Mathematics	
	MATH 256 - Introduction to Probability and Statistics	Fall 2020
	MATH 156 - General Statistics	Fall 2020
	Grinnell College, Department of Mathematics and Statistics	
	STA 395 - Applied Data Science	Spring 2020
	STA 230 - Introduction to Data Science	Fall 2019
	STA 230 - Introduction to Data Science (two sections)	Spring 2019
	STA 209 - Applied Statistics	Spring 2020
	STA 209 - Applied Statistics (two sections)	Fall 2019
	STA 209 - Applied Statistics	Spring 2019
	STA 209 - Applied Statistics (two sections)	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, Algebra II w/ Trig, Algebra I, Advanced Algebra	2011-2012
RESEARCH INTERESTS	<ul style="list-style-type: none"> <li>• High-dimesional data analysis</li> <li>• Penalized likelihood models</li> <li>• Large-scale inference and false discovery rates</li> <li>• Causal inference</li> <li>• Statistics and Data Science eduction</li> <li>• Statistical applications in driving research</li> </ul>	
PEER-REVIEWED PUBLICATIONS	<ol style="list-style-type: none"> <li>1. <b>Miller, R.</b>, and Breheny, P “Marginal false discovery rate control for likelihood-based penalized regression models” <i>Biometrical Journal</i>. 2019; 1– 13. <a href="https://onlinelibrary.wiley.com/doi/abs/10.1002/bimj.201800138">https://onlinelibrary.wiley.com/doi/abs/10.1002/bimj.201800138</a></li> <li>2. <b>Miller, R.</b>, Brown, T, Lee, S*, Tibrewal, I*, Milavetz, G, Gaffney, G, Hartman, Hartman R, D Gorelick, R Compton, Huestis, M “Impact of cannabis and low alcohol concentration on divided attention tasks during driving” <i>Traffic Injury Prevention</i>. 2020 (to appear)</li> </ol>	
	* indicates undergraduate student co-author	
MANUSCRIPTS IN PROGRESS	<ol style="list-style-type: none"> <li>1. <b>Miller, R.</b>, and Breheny, P “Feature-specific inference for penalized regression using local false discovery rates” (In submission) Pre-print: <a href="https://arxiv.org/abs/1809.05497">https://arxiv.org/abs/1809.05497</a></li> <li>2. <b>Miller, R.</b>, and Breheny, P “Marginal false discovery rates for group lasso selections” (In preparation)</li> </ol>	
CONFERENCE PRESENTATIONS	<ol style="list-style-type: none"> <li>1. <b>Miller, R.</b>, Brown, T, Lee, S*, Tibrewal, I*, Milavetz, G, Gaffney, G, Hartman, Hartman R, D Gorelick, R Compton, Huestis, M “Secondary Task Performance While Driving: The Impacts of cannabis and low alcohol concentration on divided attention tasks during driving” <i>Association for the Advancement of Automotive Medicine, 64th annual scientific conference</i>. October 16, 2020</li> </ol>	

MENTORING	<p>Student Summer Research:</p> <ul style="list-style-type: none"> <li>• Jindal, T, and Luo, Y “A latent variable approach for analyzing collision scenarios with application to driving simulator time-series data” (Summer 2019) <ul style="list-style-type: none"> <li>• Accepted for poster presentation at the 2019 <i>Midstates Consortium for Math and Science</i> at University of Chicago</li> </ul> </li> <li>• Lee, S, and Tibrewal, I “Evaluating the impact of cannabis, with and without alcohol, on secondary tasks performed while driving” (Summer 2019) <ul style="list-style-type: none"> <li>• Accepted for oral presentation at the 2019 <i>Midstates Consortium for Math and Science</i> at University of Chicago</li> <li>• Accepted for oral presentation at the 2020 <i>Association for the Advancement of Automotive Medicine</i> annual conference in Portland Oregon</li> <li>• Accepted for publication in <i>Traffic Injury Prevention</i>, 2020</li> </ul> </li> </ul> <p>Award Winning Student Projects:</p> <ul style="list-style-type: none"> <li>• Uzzi, MJ, and Li, L “An Evaluation of the Factors Influencing College Graduation Rate” (Spring 2020) <ul style="list-style-type: none"> <li>• 2nd place in the June 2020 USCLAP Introductory Statistics paper competition</li> <li>• Presented at the 2020 Electronic Undergraduate Statistics Research Conference</li> </ul> </li> <li>• Carroll-Townsend, D “Factors on Receiving the Flu Vaccine” (Spring 2020) <ul style="list-style-type: none"> <li>• Honorable mention in the June 2020 USCLAP Introductory Statistics paper competition</li> </ul> </li> </ul> <p>Doctoral Committee Member:</p> <ul style="list-style-type: none"> <li>• Peterson, R, University of Iowa, Department of Biostatistics (Spring 2019)</li> </ul>
HONORS AND RECOGNITIONS	<ul style="list-style-type: none"> <li>• William R. Clarke Graduate Teaching award recipient, University of Iowa 2018</li> <li>• Outstanding Teaching Assistant nominee, University of Iowa 2013-14</li> <li>• Pi Mu Epsilon honor society inductee, Augustana College chapter 2010</li> <li>• Four-year letterman, Cross Country, Track and Field, Augustana College 2007-2011</li> </ul>
PROFESSIONAL SERVICE	<p>Referee for the following journals:</p> <ul style="list-style-type: none"> <li>• Journal of Statistical Computation and Simulation (1)</li> <li>• Computational Statistics and Data Analysis (1)</li> <li>• Scientific Reports (1)</li> </ul>
PROFESSIONAL DEVELOPMENT	<p>Participant in the following workshops/conferences:</p> <ul style="list-style-type: none"> <li>• Data Science: Computation and Visualization (Grinnell Iowa, 2018)</li> <li>• Project NEXt Brown Cohort (2020-2021)</li> </ul>
REFERENCES	Available upon request

*Last updated: August, 2020*