

Brian R. Gaines

Brian.Gaines@sas.com
<http://brgaines.github.io>

EDUCATION

North Carolina State University, Raleigh, NC

Doctor of Philosophy, Statistics

December 2017

Master of Statistics, Mathematical Statistics Concentration

August 2014

- GPA: 3.8/4.0
- Dissertation: Penalized Estimation in Statistics: Applications & Algorithms

Virginia Commonwealth University, Richmond, VA

Non-degree seeking

August 2007 - May 2011

- GPA: 4.0/4.0
- Completed nine math courses

Indiana University, Bloomington, IN

Bachelor of Arts (High Distinction), Economics & Political Science

May 2007

- GPA: 3.9/4.0
- Phi Beta Kappa

TEACHING EXPERIENCE

North Carolina State University, Raleigh, NC

Instructor

Jan. 2014 – Aug. 2014, June 2015 – May 2016, Aug. 2016 – May 2017

Guest Lecturer

November 2012, March 2015, March 2016, March 2017

Teaching Assistant

Aug. 2011 – Dec. 2013

University of Richmond, Richmond, VA

Guest Lecturer

January 2011

WORK EXPERIENCE

SAS, Cary, NC

Research Statistician Developer

August 2017 – Present

- Research, design, & develop graphical user interfaces for SAS analytical methods
- Collaborate with several departments to ensure software meets customer needs

MaxPoint Interactive, Inc., Morrisville, NC

Data Scientist Intern

May 2016 – August 2016

- Researched & implemented methods to model client sales data
- Improved predictive accuracy by 40% on average

NC State University College of Veterinary Medicine, Raleigh, NC

Statistical Consultant

August 2014 – August 2015

- Employed various statistical methods to answer research questions
- Experimental design, power analyses, and applied statistical modeling

Federal Reserve Bank of Richmond, Richmond, VA

Research Associate (Research)

July 2010 - August 2011

- Supplied research assistance to staff economists
- Aided in preparation of memos for policy meetings

Research Associate (National Economic Conditions) July 2007 - July 2010

- Briefed economists on recent macroeconomic data
- Provided research support for President Jeffrey Lacker

PROFESSIONAL ACTIVITIES & SERVICE

NC Chapter of the American Statistical Association, Raleigh, NC
Treasurer November 2018 – Present
Industry Interests Group Core Strategic Team January 2018 – Present

NC State University Statistics Department, Raleigh, NC
Department Head Search Committee May 2016 – August 2017
Visit Day Organizer January 2015 – March 2015
Stat Buddy Mentor June 2012 – May 2013, June 2014 – May 2014

NCSU Statistical Learning Group (SLG), Raleigh, NC
Founder & Organizer July 2014 – May 2015

Department Graduate Student Association (GSA), Raleigh, NC
President May 2013 – May 2014
Member, Beach Trip Committee June 2013 – September 2013

AWARDS

2nd place, NC State University Graduate Research Symposium March 2017
University GSA Recognition for Excellence in Classroom Teaching March 2017
Francis G. Giesbrecht Award for Statistical Consulting April 2015
Gertrude M. Cox Achievement Award (best prelim exam) April 2014
Department Outstanding Teaching Assistant April 2014
University GSA Outstanding Teaching Assistant March 2014
Elected to Mu Sigma Rho (statistics honor society) March 2013
STEM Supplemental Fellowship August 2011 - May 2012

COMPUTING EXPERIENCE

SAS, SAS Viya, MATLAB, R, LaTeX, Linux, Git, XML, Apache Velocity, Julia, Python, Microsoft Office

RESEARCH INTERESTS

Machine learning, big and high-dimensional data, computational statistics, statistics education

PUBLICATIONS

Parkinson, L., Thomas, P., **Gaines, B.**, and Nollens, H. (2019). "Effect of Nutrient Enema on Serum Nutrient Concentrations in White-Spotted Bamboo Sharks (*Chiloscyllium Plagiosum*)," *Journal of Zoo and Wildlife Medicine*, forthcoming.

Gaines, B., Kim, J., and Zhou, H. (2018). "Algorithms for Fitting the Constrained Lasso." *Journal of Computational and Graphical Statistics*, 27(4), 861-871.

Jarrett, M., Bailey, K., Messenger, K., Prange, T., **Gaines, B.**, and Posner, L. (2018). "Recovery of Horses from General Anesthesia After Induction with Propofol and Ketamine Versus Midazolam and Ketamine," *Journal of the American Veterinary Medical Association*, 253(1), 101-107.

Balko, J., Wilson, S., Lewbart, G., **Gaines, B.**, and Posner, L. (2017). "Propofol as an Immersion Anesthetic and in a Minimum Anesthetic Concentration (MAC) Reduction Model In Goldfish (*Carassius Auratus*)," *Journal of Zoo and Wildlife Medicine*, 48(1), 48-54.

Muller, C., **Gaines, B.**, et al. (2016). "Evaluation of Clinical Metrology Instrument in Dogs with Osteoarthritis." *Journal of Veterinary Internal Medicine*, 30(3), 836-846.

Jarque, A., and **Gaines, B.** (2012). "Regulation and the Composition of CEO Pay." *Federal Reserve Bank of Richmond Economic Quarterly*, 98(4), 309-348.