

# Brian R. Gaines

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

## EDUCATION

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### **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

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### **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

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### **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

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## 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

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## AWARDS

2 <sup>nd</sup> 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

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## COMPUTING EXPERIENCE

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

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## RESEARCH INTERESTS

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

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## PUBLICATIONS

Parkinson, L., Thomas, P., **Gaines, B.**, and Nollens, H. (2018). "Metabolic State of White-Spotted Bamboo Sharks (*Chiloscyllium plagiosum*) Following Nutrient Enemas," submitted.

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

Jarrett, M., Bailey, K., Messenger, K., Prange, T., **Gaines, B.**, and Posner, L. (2018). "Recovery of Horses from General Anesthesia Following Induction with Either Propofol or Midazolam Followed by Ketamine," *Journal of the American Veterinary Medical Association*, forthcoming.

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.