

# Brian R. Gaines

brgaines@ncsu.edu

<http://brgaines.github.io>

## EDUCATION

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### **North Carolina State University**, Raleigh, NC

*Doctor of Philosophy, Statistics*

May 2017 (Expected)

*Master of Statistics, Mathematical Statistics Concentration*

August 2014

- GPA: 3.8/4.0
- Passed qualifier at Ph.D. level
- Passed Ph.D. written prelim exam

### **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

## ACADEMIC EXPERIENCE

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### **North Carolina State University**, Raleigh, NC

*Teaching Assistant*

Aug. 2011 – May 2014, Aug. 2015 – May 2016, Aug. 2016 - Present

- ST512 – Experimental Statistics For Biological Sciences II
- ST372 – Introduction to Statistical Inference and Regression
- ST311 – Introduction to Statistics
- ST350 – Economics & Business Statistics

*Lecturer, ST311*

May 2014 – Aug. 2014, June 2015 – Aug. 2015

*Guest Lecturer, ST512*

November 2012, March 2015

### **University of Richmond**, Richmond, VA

*Guest Lecturer, ECON 200 – Money & Banking*

January 2011

## WORK EXPERIENCE

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### **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

**U.S. Congressman Mike Pence**, Washington, D.C.*Intern*

June 2006 - July 2006

- Attended hearings and briefed congressional staff members
- Addressed constituent concerns on various national policy issues

PROFESSIONAL ACTIVITIES & SERVICE

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**NC State University Statistics Department**, Raleigh, NC*Department Head Search Committee*

May 2016 - Present

*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*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

**Statistics in the Community (STATCOM)**, Raleigh, NC*Member, Executive Committee*

November 2012 – November 2013

AWARDS

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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

RESEARCH INTERESTS

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Machine learning, big and high-dimensional data, computational statistics, Bayesian methods

COMPUTING EXPERIENCE

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R, MATLAB, SAS, LaTeX, Linux, Git, Julia, Python, SQL, Microsoft Office, Stata

## PUBLICATIONS

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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*, forthcoming.

Jarrett, M., Bailey, K., Messenger, K., Prange, T., **Gaines, B.**, and Posner, L. (2016). "Recovery of Horses from General Anesthesia Following Induction with Either Propofol or Midazolam Followed by Ketamine," *Journal of the American Veterinary Medical Association*, forthcoming.

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.