

# Gary Larson

Department of Statistical Science  
Box 90251, Old Chemistry Building  
Duke University  
Durham, NC 27708  
gary.larson@duke.edu

## Education

### DUKE UNIVERSITY

Ph.D. (in progress), Department of Statistical Science; expected fall 2017

M.S. in Statistical Science, Department of Statistical Science, 2014

### UNIVERSITY OF RICHMOND

B.S. summa cum laude, Mathematics & Interdisciplinary Physics, 2006

## Employment

<b>Duke University</b> , Graduate Student and Research Assistant	August 2012 – present
<b>Mercer</b> , Consultant	August 2010 – September 2011
<b>Mercer</b> , Actuarial Analyst	September 2007 – July 2010
<b>Shenzhen Education Bureau</b> , English Teacher	August 2006 – June 2007

## Research Experience

### *Graduate*

Projects related to the bioinformatics / structural biology problems of protein alignment and protein structure prediction. Advised by Scott Schmidler, supported by NSF DMS-1407622.

### **Conference Presentations**

G. Larson, S. Schmidler, "A Spatio-Temporal Model For Protein Structure Evolution and Alignment", Joint Statistical Meetings, Chicago, IL, August 2016.

G. Larson, S. Schmidler, "Site Dependent Transitions in Hidden Markov Models for Bayesian Protein Structure Alignment", UNCG Regional Mathematics and Statistics Conference, Greensboro, NC, November 2015.

**Poster Sessions**

“Modeling Site Dependence in Evolutionary Bayesian Models for Protein Structure Alignment”, 2015 SAMSI Graduate Fellow Poster Session, April 2015

“Parallelizable Computation in Multiple Protein Structure Alignment”, Duke Research Computing Symposium, Duke University, January 2015.

*Undergraduate*

Cosmology research with E.F. Bunn, University of Richmond Department of Physics, January 2004 – January 2006; supported by NSF grant 0233969 and by a Cottrell Award from the Research Corporation.

**Conference Poster Sessions**

G. Larson, E.F. Bunn, V. Kasliwal, M. McCann, “Filtering Dust Contamination from CMB Data with Wavelets and Radon Transforms,” American Astronomical Society Meeting, Washington, DC, January 2006.

**Non-Refereed Papers**

G. Larson, E.F. Bunn, “Filtering Dust Contamination from CMB Data with Wavelets and Radon Transforms,” University of Richmond Department of Physics, Richmond, VA, April 2006.

**Teaching***Instructor of record*

Data Analysis and Statistical Inference (STA 101)	Summer 2015
---	-------------

*Teaching assistant*

Advanced Statistical Computing (STA 863, Scott Schmidler)	Fall 2015
---	-----------

Statistical Consulting Workshop (STA 851, Ed Iversen)	Spring 2015
---	-------------

Data Analysis and Statistical Inference (Coursera, Community TA)	Spring, Fall 2014
--	-------------------

Linear Models (STA 721, Merlise Clyde); co-TA with Nicole Dalzell	Fall 2013
---	-----------

Data Analysis and Statistical Inference (STA 101, Mine Çetinkaya-Rundel)	Spring 2013
--	-------------

**Consulting**

“The Delta of Command: The Increasing Gap between Character and Competence in the Navy’s Commanding Officer Screening and Selection” - CAPT Jamie Sands, US Navy; Master’s Thesis. Provided statistical consulting and guidance for a hypothesis test by randomization.

## Coursework

*[course name][STA course number]*

Probability and Measure Theory [STA 711]; Linear Models [721]; Introduction to Bayesian and Modern Statistics [601]; Special Topics: Teaching Statistics [790]; Case Studies [723]; Statistical Inference [732]; Probability and Statistical Models [831]; Generalized Linear Models [841]; Special Topics: Objective Bayesian Inference [790]; Advanced Statistical Computing [863]; Stochastic Processes [961]; Statistical and Mathematical Challenges in Molecular Evolution [790]; Statistical Consulting Workshop [851]; Bayesian Nonparametrics [941]

## Service

Assistant Organizer and Consultant for DataFest at Duke University	March 2015
Panelist; SAMSI Undergraduate Education and Outreach Workshop	October 2014
Materials preparation for Coursera course "Data Analysis and Statistical Inference"	Spring 2014
Member of Graduate Consultative Committee (Department of Statistical Science)	2012-2014

## Software Skills

Intermediate-Advanced Level: R,  $\LaTeX$ , Excel

Basic Level: Java, MPI, C++, Matlab, *Mathematica*

## Honors and Awards

### *Duke University*

Summer Research Fellowship for Third-Year Ph.D. Students and Beyond (2016)

Outstanding Graduate Student TA, Department of Statistical Science (2014)

### *University of Richmond*

Phi Beta Kappa, Virginia Epsilon

Pi Mu Epsilon, Virginia Alpha

V. S. Lawrence scholarship, Department of Mathematics & Computer Science (2004, 2005)

University Scholars scholarship program (2002 – 2006)

Dean's List (2002 – 2006)

## Miscellaneous

Member, International Society for Bayesian Analysis (ISBA), 2012-present

Member, Junior ISBA Section, 2012-present

Passed Society of Actuaries exams: VEE, P, FM, C, MFE

Last updated: September 22, 2016