

ADAM J. SUAREZ

Curriculum Vitae

Education

August 2009 – August 2016

Doctor of Philosophy in Statistics and Mathematics

*Completed all requirements for both degrees

North Carolina State University

Advisors: Subhashis Ghoshal and Jesus Rodriguez

Dissertation Topic: Bayesian Methods for Functional Data and Existence Theorems for Certain Classes of Ordinary Differential Equations

Gpa: 4.00

December 2014

Master of Science

North Carolina State University

Major: Mathematics

Gpa: 4.00

August 2007 – May 2009

Master of Statistics

North Carolina State University

Concentration: Mathematical Statistics

Gpa: 3.92

August 2003 – May 2007

Bachelor of Arts

Washington University in St. Louis

Major: Mathematics

Minor: Psychology

Gpa: 3.55

Honor Society Memberships and Awards

since October 2008

The Honor Society of Phi Kappa Phi

since November 2006

Psi Chi, the International Honor Society in Psychology

since June 2009

Mu Sigma Rho, the National Statistics Honorary Society

August 2007 - May 2009

UNC Office of the President Fellowship for Statistical Genetics

April 2008

NCSU Alumni Association Fellowship

Born in Miami, Florida – November 17, 1984



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Most Recent Experience

June 2016 – Present

Data Analytics/Statistical Scientist

Monsanto Company

Automation of existing models including building SQL queries and Node.js APIs to serve data, recoding existing models in R, moving computation to cloud environments. Developing novel Bayesian methods for spatial and genetic data. Applying existing methodologies such as gradient boosting and Bayesian additive regression trees to complex data for prediction. Building docker images to make results reproducible. Leading analytics strategy for multiple projects through serving on Project Leadership Teams. Building dashboards for collaborators using R Shiny, HTML/CSS/JavaScript, and Spotfire.

Spring 2013 – Fall 2014, Fall 2015

Research Assistant

North Carolina State University

Department of Statistics/Bioinformatics Research Center Supported research efforts of multiple professors in the Bioinformatics program at NCSU. Projects included simulation studies of the properties of principal components of data generated on a graph (population genetics) and computation of beta-binomial regression models using parallelization in C for building an R package (RNAseq data application).

August 2009 – 2015

Teaching Assistant

North Carolina State University

Held office hours and graded for many PhD levels courses in Mathematics and Statistics including Asymptotics, Stochastic Processes, Functional Analysis, Statistical Computing, and Bayesian Statistics. Taught a lab session for graduate students in science disciplines. Taught a full undergraduate course on Introductory Statistics. Mentored students in the Summer Institute in Biostatistics.

Publications

Rodriguez, J., Suarez, A.J. (2017). "Existence of Solution to Nonlinear Boundary Value Problems." *Differential Equations and Applications*, 9(1): 1-11.

Suarez, A.J., Ghosal, S. (2017). "Bayesian Estimation of Principal Components for Functional Data." *Bayesian Analysis*, 12(2): 311-333.

Rodriguez, J., Suarez, A.J. (2016). "On Nonlinear Perturbations of Sturm-Liouville Problems in Discrete and Continuous Settings." *Differential Equations and Applications*, 8(3): 319-334.

Suarez, A.J., Ghosal, S. (2016). "Bayesian Clustering of Functional Data Using Local Features." *Bayesian Analysis*, 11(1): 71-98.

Professional Society Memberships

International Society for Bayesian Analysis (and section on Bayesian Nonparametrics)

Conferences Attended

July 28- August 4, 2017

Joint Statistical Meetings – Baltimore, MD

*Presented Invited Talk

Highlights from Bayesian Analysis - Bayesian Estimation of Principal Components for Functional Data

June 22-26, 2015

10th Conference on Bayesian Nonparametrics – Raleigh, NC

*Presented Poster

Bayesian Functional Principal Components and Covariance Estimation

August 2-7, 2014

Joint Statistical Meetings – Boston, MA

April 21-24, 2011

IISA Conference on Probability, Statistics, and Data Analysis – Raleigh, NC

August 16-20, 2010

CBMS Regional Conference - Bayesian Nonparametric Statistical Methods: Theory and Applications – Santa Cruz, CA

Computer Skills

Operating Systems: Linux (Preferred), Apple macOS, MS Windows

Programming Languages: R, C, SAS, HTML/CSS/Javascript, Node.js, \LaTeX

Programs: Microsoft Word, Excel, PowerPoint

Websites

May 2015

<https://www.ajsuarez.com>

Setup and currently maintain the server (Ubuntu Server on VPS); designed the website.

Interests and Activities

Bayesian Statistics, Statistical Genetics, Functional Data, Differential Equations, Functional Analysis, Nonlinear Analysis, Time Series, Philosophy of Science, Philosophy of Statistics, Psychology, Constitutional Law, Football, Weightlifting, Photography