

# Nicholas S. Berry

Graduate Student at Iowa State University  
1612 Burnett Ave., Ames, IA. 50010.

June 20, 2017

[berryni@iastate.edu](mailto:berryni@iastate.edu)

<https://berryni.github.io>

## Education

- Iowa State University** Ames, IA  
*Ph.D. Statistics & M.S. Statistics* 2013 - 2018 (expected)
  - Research in unsupervised learning, especially clustering, as well as graphical models, including Dynamic Bayesian Networks and Gaussian Graphical Models.
  - Committee: Prof. Ranjan Maitra (advisor), Prof. George Amariuca, Prof. Dan Nettleton, Prof. Vivekananda Roy, Dr. William Meeker
- Texas A&M University** College Station, TX  
*B.S. Applied Mathematics, emphasis in Statistics* 2009 - 2013

## Research Experience

- Iowa State University** Ames, IA  
*Center for Statistics and Applications in Forensic Evidence* Fall 2017 -
  - Digital Forensics Analysis
- MD Anderson Cancer Center** Houston, TX  
*Graduate Researcher under Drs. Min Jin Ha and Kim-Ahn Do* Summer 2017
  - Created pipeline for analysis of underlying graph structures for Microbiome data
  - Estimation and differential network analysis for sub-group specific Microbiome data
- Iowa State University** Ames, IA  
*Graduate Researcher under Dr. George Amariuca* Fall 2015 - Spring 2017
  - Continuous Biometric Authentication via Dynamic Bayesian Networks
  - Eliminating positive feedback for connected authenticating devices

## Teaching Experience

- Instructor** Iowa State University Ames, IA
  - Stat 104: Fall 2014, Spring 2015, Fall 2015
- Grader** Iowa State University Ames, IA
  - Stat 401: Summer 2015
  - Stat 101: Fall 2013, Spring 2014, Summer 2014

## Skills

- **Statistics**
  - Advanced statistical methods, including spatial, time series, advanced likelihood topics, and Bayesian inference
  - Statistical Computing (in R & C) – Advanced MCMC methods, clustering algorithms, EM, Bootstrap/Jackknife
  - Measure & Probability Theory
- **Programming/Software**
  - Fluent in R, C, C++, and Python
  - Extensive use of Java and SAS
  - Broad understanding of data structures and algorithms
  - Proficient with L<sup>A</sup>T<sub>E</sub>X, the tidyverse, git, and dynamic document creation
- I am science literate, allowing me to work on and quickly pick up applications across many different areas.
- Good presenter and public speaker

## Presentations

- **Digital Forensics Workshop** Washington D.C.  
*May 2017*
  - Continuous Biometric Authentication and Sequential Updating of Beliefs
- **Statistical Learning Working Group** Iowa State University  
*October 2016*
  - Continuous Authentication in Challenging Environments via Dynamic Bayesian Networks
- **Joint Statistical Meetings** Baltimore, MD  
*August 2017*
  - Variable Selection in K-means Clustering

## Awards

- **Graduate Teaching Award** Iowa State University  
*April 2016*

## Other Projects

- *International Champions Cup Ticket Sales*

*Summer 2014*

- Consulted on project to model and predict final ticket sales for Soccer games in US based on data from previous year.
- Made accurate predictions, despite those predictions being much different than anticipated by company.