

Nicholas S. Berry

Graduate Student at Iowa State University
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<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^AT_EX, 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

- **Joint Statistical Meetings**

Baltimore, MD
August 2017

 - Variable Selection in K-means Clustering
- **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

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.