Nicholas S. Berry

Graduate Student at Iowa State University
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June 20, 2017
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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 Amariucai, Prof. Dan Nettleton, Prof. Vivekananda Roy, Prof. 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 - Curr.*
  - 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 Amariucai — *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 LaTeX, the tidyverse, git, and dynamic document creation

- Strong public speaking skills

- I am science literate, allowing me to work seamlessly on applications across many different areas

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 a 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 different than anticipated by the hiring company