# Iain Carmichael

| | | |
|---|---|---|
| CONTACT | *Email*: iain@unc.edu | *website*: http://iaincarmichael.web.unc.edu/ |
| | *GitHub*: idc9 | |

EDUCATION **The University of North Carolina,** *Chapel Hill, NC*                August 2014 - Present
**Ph.D.** Statistics, Department of Statistics and Operations Research
Advisors: J.S. Marron, Shankar Bhamidi

**Cornell University,** College of Arts and Sciences, *Ithaca, NY*                May, 2014
**B.A.** Mathematics, Cum Laude
**B.A.** Physics, Cum Laude

COURSEWORK Machine Learning, Probability, Bayesian Statistics, Algorithms, Optimization

SKILLS **Programming Languages:** Python, R, LaTeX
**Statistical Techniques:** Classification, Network Science, MCMC, PCA, Probabilistic Programming

RESEARCH EXPERIENCE **Research Assistant,** STOR Department, UNC, *Chapel Hill, NC*                Spring 2016 - Present
- Support Vector Machine in high dimensional settings
- stochastic processes and temporally evolving networks
- dimensionality reduction for multi-layered network observations
- applications in neuroscience and law

**Research Scientist,** Gamalon Machine Intelligence, UNC, *Cambridge, MA* May 2016 - August 2016
- research on problems in probabilistic programming
- contributed to the development of Chimpy, a probabilistic programming language in Python

**Research in Industrial Projects for Students,** UCLA, *Los Angeles, CA*                Summer 2012
- participated in NSF sponsored research program at the Institute for Pure and Applied Mathematics
- designed and analyzed satellite regional coverage algorithms for the Aerospace Corporation

**CUSat Engineering Project Team**, Cornell Space System Design Studio, *Ithaca, NY*                Fall 2011
- readied communication hardware and software in preparation for satellite launch

TEACHING EXPERIENCE **Instructor,** STOR 390: Introduction to Data Science, *Chapel Hill, NC*                Spring 2017
- grant from Data@Carolina initiative to design undergraduate data science course
- https://idc9.github.io/stor390/

**Graduate Research Consultant**, Department of Journalism, UNC, *Chapel Hill, NC*                Spring 2016
- Taught R and data science skills to journalism students
- JOMC 390: Data Journalism                Spring, 2016

PROJECTS **Court Listener,** *Chapel Hill, NC*                Spring 2016 - Present
- empirical legal research using network science and natural language processing
- supervised team of 5 undergraduate students
- https://github.com/idc9/law-net/