

William Cipolli

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Education

- 2012–2016 **Ph.D Statistics**, *University of South Carolina*, Columbia, SC.
○ Dissertation Topic: Bayesian Nonparametric Approaches to Multiple Testing, Density Estimation and Supervised Learning
○ Advisor: Dr. Timothy Hanson
- 2012–2014 **MS Statistics**, *University of South Carolina*, Columbia, SC.
- 2007–2011 **BA Mathematics**, *Quinnipiac University*, Hamden, CT.
- 2007–2011 **BS Computer Science**, *Quinnipiac University*, Hamden, CT.

Academic Positions

- 2016–Present **Assistant Professor**, *Colgate University*, Hamilton, NY.
Courses Taught:
○ Introduction to Statistics
○ Probability
○ Mathematical Statistics
Awards:
○ Nominated for Phi Eta Sigma Professor of the Year Award (2017)
- 2012–2016 **Graduate Assistant**, *University of South Carolina*, Columbia, SC.
Courses Taught:
○ Elementary Statistics with Lab
○ Statistical Methods I
Online Curriculum Content Created:
○ Elementary Statistics Lab Instructional Videos
○ Elementary Statistics Pre-Lab Quizzes
Awards:
○ Outstanding Graduate Assistant Award (2015)
○ Citizenship Award (2015)
○ Two Thumbs Up Award through Disability Services (2015)
- 2014 **Adjunct Professor**, *Florence Darlington Technical College*, Florence, SC.
Courses Taught:
○ Probability and Statistics
○ Microcomputer Applications
Online Curriculum Content Created:
○ Introduction to Statistics

Courses Taught

- 2016-2017 **Introduction to Statistics**, *Colgate University*.
An introduction to the basic concepts of statistics. Topics include experimental design, descriptive statistics, correlation, regression, basic probability, mean tendencies, the central limit theorem, point estimation with errors, hypothesis testing for means, proportions, paired data, and the chi-squared test for independence. Emphasis is on statistical reasoning rather than computation, although computation is done via spreadsheet.
Sections: Fall 2017, Spring 2017
- Spring 2017 **Mathematical Statistics**, *Colgate University*.
The standard methods in statistics are developed with mathematical rigor. Topics include parameter estimation, Bayesian estimation, the Central Limit Theorem, hypothesis testing, regression, analysis of variance, moment generating functions, and nonparametric statistics. Applications of these tools are studied, with the choice of topics determined by the instructor. Prerequisite: MATH 316. Offered in the spring only, in alternate years.
- 2016-2017 **Probability**, *Colgate University*.
An introduction to the basic concepts of discrete and continuous probability: axioms and properties of probability, standard counting techniques, conditional probability, important random variables and their discrete and continuous distributions, expectation, variance, and joint distribution functions. Additional topics may include: Poisson processes, Markov chains, and Monte Carlo methods.
Sections: Fall 2017, Fall 2016
- 2012–2016 **Elementary Statistics**, *University of South Carolina*.
An undergraduate introduction to the fundamentals of modern statistical methods, including descriptive statistics, probability, random sampling, simple linear regression, correlation, tests of hypotheses, and estimation accompanied by a lab section where assignments are completed in the StatCrunch application provided through Pearson My Lab & Mastering.
Lab Sections: Fall 2012(3), Spring 2013(3), Fall 2013, Spring 2014, Summer 2013, Fall 2014, Spring 2015, Fall 2015
Lecture Sections: Fall 2013, Spring 2014, Summer 2013, Fall 2014, Spring 2015, Fall 2015
- Summer 2015 **Statistical Methods I**, *University of South Carolina*.
A mixed undergraduate and graduate introduction to and use of the statistical package R across applications of the principles of elementary probability including essential discrete and continuous probability distributions, sampling distributions, estimation, and hypothesis testing, inference for means, variances, proportions, one-way ANOVA, simple linear regression, and contingency tables.
- Summer 2014 **Microcomputer Applications**, *Florence Darlington Technical College*.
An undergraduate course introducing microcomputer applications software, including word processing, data bases, spreadsheets, graphs, and their integration in Windows 7.
- Summer 2014 **Probability and Statistics**, *Florence Darlington Technical College*.
An undergraduate introduction to and use of a Texas Instruments graphing calculator across applications of probability and statistics, including organization of data; sample space and probability concepts; random variables; counting problems; binomial and normal distributions; central limit theorem; confidence intervals; and test hypothesis for large and small samples; types I and II errors; linear regression and correlation.

Publications

- W. Cipolli and T. Hanson, "Supervised learning for high dimensional data through smoothed Poly trees." Submitted to *Statistical Methods in Medical Research.*, 2017.
- W. Cipolli, M. Dascalu, and A. Robertson, "On the distribution of monochromatic complete subgraphs and arithmetic progressions." In Progress, 2017.
- R. Bower, J. Hussey, J. Zhang, J. Quattro, W. Cipolli, and J. Hardin, "Multiple score tests for a bivariate Pareto distribution." In Progress, 2017.

R. Bower, J. Hussey, J. Zhang, J. Quattro, W. Cipolli, and J. Hardin, "A copula approach for testing independence using Poisson cumulative distribution functions." In Progress, 2017.

R. Bower, J. Hussey, J. Zhang, J. Quattro, M. Muhling, W. Cipolli, and J. Hardin, "The score test for independence of two marginal Poisson variables." Submitted to Computational Statistics, 2017.

D. M. Silva, W. Cipolli, and R. Bower, "In search of a five-star: The centrality of body discourses in the scouting of high school football athletes," 2017.

E. Cooley, B. Payne, W. Cipolli, C. Cameron, A. Berger, and K. Gray, "The paradox of group mind: "people in a group" have more mind than "a group of people"." Accepted at the Journal of Experimental Psychology: General., 2017.

K. Flory, B. A. Bell, K. Burgess, E. R. Sicheloff, W. Cipolli, and R. Bower, "Bifactor models of the strengths and difficulties questionnaire in a large U.S. community sample," Presented at the annual meeting of the American Psychological Association, Denver, CO, 2016.

W. Cipolli and T. Hanson, "Computationally tractable approximate and smoothed Polya trees," *Statistics and Computing*, pp. 1–13, April 2016.

W. Cipolli, T. Hanson, and A. McLain, "Bayesian nonparametric multiple testing," *Computational Statistics and Data Analysis*, vol. 101, pp. 64–79, September 2016.

J. Fowler, W. Cipolli, and T. Hanson, "A comparison of three diagnostic tests for diagnosis of carpal tunnel syndrome using latent class analysis," *Journal of Bone & Joint Surgery*, vol. 97, pp. 1958–1961, December 2015.

Invited Presentations

- 06/26/2017 **Bayesian Nonparametrics 2017**, *Ecole Normale Supérieure*, Paris, France.
- Presented poster during Poster Session for graduate students and junior faculty
- 05/25/2017 **2017 Conference on Lifetime Data Science**, *UConn University*, Storrs, CT.
- Contributed to a contributed talk in the Bayesian Nonparametric Survival Analysis section under the theme - Data Science, Precision Medicine and Risk Analysis with Lifetime Data
- 03/29/2017 **Annual Meeting of the Southern Sociological Society**, *Hyatt Regency Conference Center*, Greenville, SC.
- Contributed to a contributed talk in the Sociology of Sports section under the theme - Diversities: Inequality, Inclusion, and Resistance
- 07/30/2016 **Joint Statistical Meetings 2016**, *McCormick Place*, Chicago, Illinois.
- Presented poster during Poster Session for graduate students and junior faculty
- 06/22/2015 **Bayesian Nonparametrics 2015**, North Carolina State University, Raleigh, SC.
- Presented poster during Poster Session for graduate students and junior faculty
 - Awarded a travel award funded by NSF federal grants
- 06/09/2015 **Southern Regional Council on Statistics Summer Research Conference 2015**, Carolina Beach, NC.
- Presented poster during NSF/Anderson Student Poster Session
 - Awarded a Boyd Harshbarger Travel Award
 - Honorable mention in poster competition.
- 03/06/2015 **ASA Palmetto Symposium**, University of South Carolina, Columbia, SC.
- Gave a contributed talk during the student paper portion of the Symposium

Professional Consulting

- 03/16/2014 **Judging Appropriateness of SUP Using Patient Demographic Data**, *Pharmacology Department*, University of South Carolina, Columbia, SC.
- 02/17/2014 **Veteran Affairs Resource Utilization by Patients with HFpEF**, *Pharmacology Department*, University of South Carolina, Columbia, SC.
- 02/05/2014 **Attitude towards Homelessness Questionnaire**, *Psychology Department*, University of South Carolina, Columbia, SC.