

Cora Allen-Savietta

Statistics Researcher

Statistician with 8 years of theoretical and applied statistics experience and 2 years of software development experience. Currently developing software in Julia to reconstruct evolutionary history from modern DNA sequences.

Education

PhD Statistics University of Wisconsin-Madison
minor in Biostatistics
expected December 2020

BA Psychology Oberlin College
high honors

Experience

2018-03 - present	Statistics Research Assistant Professor Cécile Ané, University of Wisconsin–Madison <ul style="list-style-type: none">Develop software in Julia to reconstruct species' evolutionary history by combining efficient algorithms, novel search strategies, and efficient likelihood comparison. github.com/crs14/PhyloNetworks.jl
2016-05 - present	Statistics Research Assistant Professor Ron Gangnon, University of Wisconsin–Madison <ul style="list-style-type: none">Develop a statistical method for flexible weighted clustered rankings using empirical Bayes nonparametric mixture models
2016-05 - present	Lead Data Analyst University of Wisconsin-Madison Department of Epidemiology <ul style="list-style-type: none">Assess breast cancer incidence and survival in a case-control study of over 26,000 women with generalized multivariate additive spatial models, covariate imputation, and variable width smoothing in R.
2018-02 - 2019-03	Lead Data Analyst University of Wisconsin-Madison Department of Medicine <ul style="list-style-type: none">Evaluated program success with multivariate generalized linear mixed effects models in R.
2012-06 - 2015-08	Epidemiology Research Assistant Harvard Medical School & Brigham and Women’s Hospital <ul style="list-style-type: none">Led a clinical trial, supervising a team of five research assistants through patient recruitment and data analysis with RManaged large-scale healthcare claims data using SASAssisted in design, analysis, and publication of pharmaceutical postmarketing surveillance studies

Teaching and Mentoring

2018-09 - 2018-12	Teaching Assistant for Computational Tools for Data Analytics <ul style="list-style-type: none">Taught 42 biology, statistics, and biomedical graduate students Bash scripting, Python & Julia.Mentored students individually and in small groups through pair programming and GitHub code review.
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Personal Info

Location	Madison, WI
Phone	608-239-4068
E-mail	allencoleman@wisc.edu
GitHub	github.com/coraallensavietta

Skills

Julia	<div><div></div><div></div><div></div><div></div><div></div></div>
R	<div><div></div><div></div><div></div><div></div><div></div></div>
Python	<div><div></div><div></div><div></div><div></div><div></div></div>
Git	<div><div></div><div></div><div></div><div></div><div></div></div>
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Awards

2020-08	National Science Foundation Institute for Foundations for Data Science Research Support
2017-07	National Institutes of Health Data Science Traineeship
2015-09	National Institutes of Health Biostatistics Traineeship
2012-03	Leah Freed Memorial Prize for Honors Thesis Research
2012-01	Jerome Davis Prize for Social Science Thesis Research

2016-01 - 2018-05	<p>Undergraduate & Graduate Student Mentoring</p> <ul style="list-style-type: none"> • Mentored 6 Statistics undergraduates in preparing honors thesis projects. • Tutored 7 undergraduates and graduate students in Statistics courses weekly.
2015-09 - 2015-12	<p>Teaching Assistant for Introduction to Biostatistics</p> <ul style="list-style-type: none"> • Introduced 40 Masters of Public Health students to probability, research design, hypothesis testing, statistical inference, and regression. • Taught one lecture per week and mentored students independently.

Peer-reviewed Publications

Allen-Savietta, C, Ané, C. Phylogenetic Network Structure Estimation and Identifiability from Concatenated Genetic Sequences. *In preparation*.

Heffron, A, Braun, KM, **Allen-Savietta, C**, Filut, A, Hanewall, C, Huttenlocher, A, Handelsman, J, Carnes, M. Gender Can Influence Student Experiences in MD-PhD Training. *Journal of Women's Health*. April 2020.

Fischer MA, **Allen-Coleman C**, Farrell SF, Schneeweiss S. Stakeholder assessment of comparative effectiveness research needs for Medicaid populations. *Journal of Comparative Effectiveness Research*. 2015 Sept 21.

Bateman BT, Huybrechts KF, Maeda A, Desai RJ, Patorno E, Seely EW, Ecker JL, **Allen-Coleman C**, Mogun H, Hernandez-Diaz S, Fischer MA. Calcium channel blocker exposure in late pregnancy and the risk of neonatal seizures: A cohort study. *Obstetrics and Gynecology*. 2015 Aug; 126(2): 271-8.

Bateman BT, Hernandez-Diaz S, Fischer MA, Seely EW, Ecker JL, Franklin JM, Desai RJ, **Allen-Coleman C**, Mogun H, Avorn J, Huybrechts KF. Statins and congenital malformations: a cohort study. *BMJ*. 2015 Mar 17;350:h1035.

Polinski JM, Kesselheim AS, Frolkis JP, Wescott P, **Allen-Coleman C**, Fischer MA. A matter of trust: Patient barriers to primary medication adherence. *Health Education Research*. 2014; 29: 755-63.

Conference Presentations

Allen-Coleman, C., Ané, Cécile M. Illuminate Evolutionary History with Phylogenetic Networks. Joint Statistical Meetings in August 2019

Allen-Coleman, C., Ané, Cécile M. Estimating Evolutionary Rates Efficiently in Phylogenetic Networks. Great Lakes Bioinformatics Conference May 2019

Allen-Coleman, C., Gangnon, R.E. Simultaneous Clustering and Ranking of Small Area Health Outcomes Using Nonparametric Empirical Bayes Mixture Models. Contributed presentation at the International Conference on Health Policy Statistics January 2020

Allen-Coleman, C., Gangnon, R.E. Making Ranking Priorities More Explicit. Contributed presentation at Joint Statistical Meetings August 2018

Allen-Coleman, C., Trentham-Dietz, A., McElroy, J.A., Hampton, J.A., Newcomb, P.A., Gangnon, R.E. Geographic Location and Mortality after Breast Cancer Diagnosis. Society for Epidemiologic Research Meeting June 2018

Professional Memberships

American Statistical Association

Caucus for Women in Statistics