

EMILY J. HUDSON

Postdoctoral Scholar, Department of Biological Sciences, Vanderbilt University

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Research scientist passionate about using data for positive change. Eight years experience writing code to analyze behavioral and spatial data. Creative problem solver and independent critical thinker.

Education

PhD in Biological Sciences (Ecology Evolution and Behavior Specialization) – University of Nebraska-Lincoln, 2018. Advisor: Prof. Dai Shizuka.

Bachelor of Arts in Cognitive Science – Vassar College, 2008

Selected Education and Experience

- Designed and conducted behavioral experiments in remote field conditions, leading a team of undergraduate research assistants. Came up with solutions to analyze complex response data using generalized linear mixed models, revealing the best predictors of behavioral responses. Presented results in talks at international meetings (2013-2018)
 - Frequently presented research in public venues, including to Nebraska Friends of Science, Yukon Birding Club, Warner Park Nature Center (Nashville, TN)
 - Expanded quantitative skills as a postdoctoral researcher at Vanderbilt University (PI: Prof. Nicole Creanza), developed novel application of a mathematical model of human cultural evolution to bird song
 - Grad courses include: Quantitative analysis in Biology, Fundamentals of Research Design and Data Analysis
 - Completed Data Visualization workshop with Vanderbilt Institute for Digital Learning (matplotlib and seaborn libraries in Python) and Introduction to Python course through Vanderbilt Libraries
 - Participated in HCC Kickstart Fall 2016: bash, git, intro to high performance computing (UNL)
 - Handled day to day operation of Journal of Molecular Evolution, including assigning manuscript associate editors and reviewers and coordinating with the production team (2009-2013)
 - Conference Secretariat for Society of Molecular Biology and Evolution annual meeting in downtown Chicago. Negotiated with conference vendors, coordinated registration, payment and abstract submission (2013)
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Skills

- R programming language
- Multivariate Statistics
- Clear technical writing
- Data visualization in R, Python and Office suite software
- Familiarity with markdown (Jupyter and Knitr)
- Familiarity with MySQL and Google Cloud
- R geospatial data packages including `sf` and `raster`