

Cristina Robinson

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Portfolio: <https://neurobio.github.io/Portfolio>

SUMMARY:

Software engineer with the training of a scientist and the creativity of an artist. Earned a PhD in computational biology with eight publications. Earned a Certificate in Data Analytics to enhance skills in Python, SQL, and Big Data Analytics. Self-driven and excels in collaborative environments. Leadership experience includes instituting code review in the Creanza lab, leading the development team for the lab's website, and mentoring six graduate students.

EXPERIENCE:

August 2020-Present: Programming Consultant, TrustiPhi LLC

Using an iterative, mockup process, completed an extensive redesign of TrustiPhi's flagship angular app to provide a consistent, intuitive user-experience. Responsible for developing new features of the redesigned application including resolvers and unit tests. Extended and improved base functionality as well as implementing changes to meet web accessibility standards. As part of this project, wrote over 60 JIRA tasks.

2014-2019: Teaching Assistant, Vanderbilt University

- **2019:** Used VIDL funds (GRANTS AND AWARDS) to convert my 2018 class to a senior seminar (BSCI 3965)
- **2018:** Designed/taught a coding research course (BSCI 1512L)
- **2014:** Taught intro bio lab (BSCI 1511L)

EDUCATION:

October 2021: Certificate in Data Analytics, University of Miami

2013-19: Ph.D. in Computational Biology, Vanderbilt University

Thesis Advisors: Dr. Donna Webb (2014-2017, deceased) & Dr. Nicole Creanza (2017-2019)

2009-13: B.S. in Molecular Biology and Behavioral Neuroscience, Ohio Northern University

Research Advisor: Dr. Phillip Zoladz

CODING LANGUAGES AND TOOLS:

R, Python, C#, PostgreSQL, Angular, JavaScript, Html and CSS, MongoDB, Git

LIVE PROJECTS:

World Building Website: <https://arecace.com>

A showcase website displaying stories and concept art created by me for my original worldbuilding project. Required: Angular, Firebase, Google Cloud Platform, Cloud Functions written in Python

GitHub Repository: <https://github.com/NeuroBio/ArecaceWebsite>

Song Evolution Model: <https://neurobio.github.io/SEMWebApp/release/SEMWebApp/dist>

A web app implementing a C# library for the agent-based simulation model I coded for my thesis work.

Required: C#, Blazor, web assembly

GitHub Repository: <https://github.com/NeuroBio/SEMWebApp>

Creanza Lab Website: <https://creanzalab.com>

Led a team that designed and built a website for my research lab at Vanderbilt. Taught three teammates how to code in Angular. Required: Angular, Firebase

GitHub Repository: <https://github.com/lab-example-organization/CreanzaLabWebsite>

GRANTS AND AWARDS:

- 2019:** Commendation for Excellence in Graduate Research (Department of Biological Sciences, Vanderbilt)
2018: \$10,000 Vanderbilt Institute for Digital Learning (VIDL) Macro Grant
2015: Gisela Mosig Outstanding Graduate Student Presenter Award
2014-16: Cellular, Biochemical, and Molecular Sciences Training Grant

SELECT PUBLICATIONS:

- 1) **C. Robinson**, N. Creanza. (2021). Modeling the evolutionary interactions of sexual selection and learning strategies on the duration of song-learning in birds. *PLoS Computational Biology*. (under review).
GitHub Repository: <https://github.com/CreanzaLab/SongEvolutionModel>
- 2) **C. Robinson***, K. Snyder*, N. Creanza. (2019). Correlated evolution between repertoire size and song plasticity predicts that sexual selection on song promotes open-ended learning. *eLife*. 8: e44454
Github Repository: <https://github.com/CreanzaLab/SongLearningEvolution>
 - a. PRESS: *The Conversation*, September 3, 2019 - Complex birdsongs help biologists piece together the evolution of lifelong learning
 - b. PRESS: *Research News @ Vanderbilt*, High standards of female songbirds could be driving their mates to evolve
- 3) **C. Robinson**, N. Creanza. (2019). Species-level repertoire size predicts a correlation between individual song elaboration and reproductive success. *Ecology and Evolution*. 9(14): 8362-8377.
GitHub Repository: <https://github.com/CreanzaLab/RepertoireSizeReproductiveSuccess>

* contributed equally