

# Cristina Robinson

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GitHub: <https://github.com/NeuroBio> | LinkedIn: <https://www.linkedin.com/in/cristina-robinson-88938052/>

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 and a Certificate in Data Analytics to enhance my skills in Python, SQL, and Big Data Analytics. Self-driven, but excels in collaborative team environments, especially in roles that require a cross-disciplinary approach.

## EXPERIENCE:

### August 2020-Present: Programming Consultant for 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 50 JIRA tasks.

### Courses Taught at 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:

**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, C#, Python, Angular, TypeScript, Html and CSS, LaTeX, Git, web-scraping, postgresSQL Excel, VBA

## LIVE PROJECTS:

**Pokémon Card Database:** <https://carddatabase-6dfef.web.app/>

A database website to display and management my Pokémon card collection

Required: Angular, Angular Materials, Firebase, Google Cloud Platform, Cloud Functions written in Python, Wikimedia APIs, Web Scraping

GitHub Repository: <https://github.com/NeuroBio/pokemon-card-database>

**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>

**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>

**LEADERSHIP:**

- 2019:** Instituted and led Code Review in the Creanza Lab at Vanderbilt University  
**2019:** Led team that developed the new Creanza Lab Website  
**2015-19:** Mentored two undergraduates and four 1<sup>st</sup> year graduate students

**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