

# GREG CHISM

I develop statistics and reproducible research curriculum as a Computational and Data Science Educator at the University of Arizona Data Science Institute, where my experience with image and video analysis and research ethics support my devotion to open science.

View this CV online with links at  
[https://gchism.netlify.app/uploads/gchism\\_cv.pdf](https://gchism.netlify.app/uploads/gchism_cv.pdf)

## EDUCATION

- 2022 | 2017
- **Ph.D., Entomology and Insect Science (minor EEB)**  
Tucson, AZ  University of Arizona
    - Advisor: Dr. Anna Dornhaus
    - Interdisciplinary research into how ant nest shapes affects how they behave
    - Considered the implications towards animal behavior and human architecture fields
- 2016 | 2014
- **B.S. Zoology**  
Santa Barbara, CA  University of California Santa Barbara
    - Advisors: Drs. Armand Kuris, Kevin Laugherty
    - Investigation into the food web of sandy beach arthropods
    - Graduated distinction within major (EEMB)
- 2014 | 2012
- **A.A. Biology**  
Redding, CA  Shasta Community College

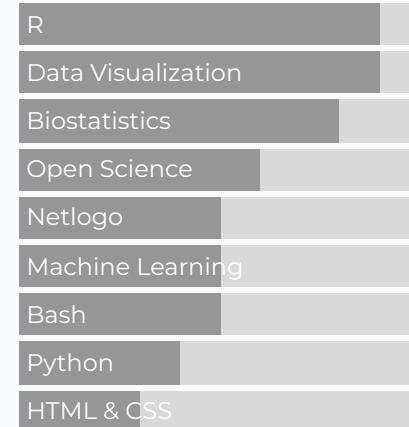
## RELATED WORK EXPERIENCE

- Current | 2022
- **Computational and Data Science Educator**  
Tucson, AZ  University of Arizona
    - Developing personalized open science and statistics curriculum in the R programming language
    - Motivating students to pursue careers in data science
    - Developing best open science practices in related research disciplines
- 2022 | 2021
- **CALS Data Science Ambassador**  
Tucson, AZ  University of Arizona
    - Provided data science consultations, resources, and referrals
    - Attended and assisted in R weekly workshops led by Dr. Jeffrey Oliver
- 2022 | 2021
- **Honors College Graduate Mentor**  
Tucson, AZ  University of Arizona
    - Mentored and assisted nine undergraduate and graduate students towards developing competitive scholarship applications

## CONTACT

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## RELEVANT SKILLS



Made with the R package  
[pagedown](#).

The source code is available on  
[github.com/Gchism94/cv](https://github.com/Gchism94/cv).

Last updated on 2022-08-11.

2021  
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2018

- **Graduate College Fellowship Application Mentor**  
Tucson, AZ 📍 University of Arizona
  - Edited and mentored over 70 applicants for the NSF GRFP and other graduate fellowships
  - Three women in STEM applicants were awarded NSF GRFs
  - Contributed Graduate Student Spotlight article as an NSF GRF recipient



## TEACHING AND MENTORSHIP

2022  
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2022

- **Research Compendium using GitHub and RStudio**  
Tucson, AZ 📍 University of Arizona
  - Created and taught a workshop series on reproducible research compendium using GitHub and RStudio

2022  
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2022

- **Exploratory Data Analysis in R Workshop Series**  
Tucson, AZ 📍 University of Arizona
  - Created and taught a workshop series on exploratory data analysis using the dlookr R package. GitHub: [https://gchism94.github.io/Data7\\_EDA\\_In\\_R\\_Workshops/](https://gchism94.github.io/Data7_EDA_In_R_Workshops/)

2022  
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2022

- **KEYS Program Educator**  
Tucson, AZ 📍 University of Arizona
  - Created and implemented an interactive Open Science Curriculum and taught introductory R/RStudio

2020  
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2018

- **Undergraduate Research Mentor**  
Tucson, AZ 📍 University of Arizona
  - Dornhaus lab: nine students mentored in producing publication quality data
  - Two students are coauthors on publications

2019  
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2018

- **Insect Discovery Teaching Assistant**  
Tucson, AZ 📍 University of Arizona
  - Taught insect science K-8 title I students through four on-campus workshops
  - Gave on-site interactive demonstrations on insect science at the Flandrau Planetarium

2019  
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2019

- **KEYS High school student Mentor**  
Tucson, AZ 📍 University of Arizona
  - Mentored an advanced high school student in data etiquette and hypothesis testing

I am passionate about open science education. I believe that learning should be student focused, highlighting their stories, experiences, and backgrounds.

2018  
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2018

- **SARSEF High school Student Mentor**  
Tucson, AZ 📍 University of Arizona
  - Mentored three high school students in data etiquette and hypothesis testing

2022  
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2022

- **Developing the Data Science Classroom** 📍 RStudio::conf(conf)
  - Equip educators with concrete information on content, workflows, and infrastructure for painlessly introducing modern computation with R and RStudio within a data science curriculum.

2022  
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2022

- **Data Carpentries Instructor**  
Tucson, AZ 📍 University of Arizona
  - Trained to provide high quality data science workshops that are inclusive and broad reaching

2018  
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2018

- **Data-driven Ecological Synthesis 2018**  
Montreal, Canada 📍 Université de Montréal
  - Applying the R programming language to answer a diversity of biological questions

## ⌚ PUBLISHED RESEARCH COMPENDIUM

2022  
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2022

- **AntColonyPerformance**  
GitHub repository
  - Zenodo published pre-release for a research compendium to reproduce in preparation research

2022  
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2022

- **NestArchOrg**  
GitHub repository
  - Zenodo published research compendium to reproduce results from DOI: <https://doi.org/10.1101/2022.06.30.498314>

2022  
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2022

- **HumidityProject**  
GitHub repository
  - Zenodo published research compendium to reproduce results from DOI: <https://doi.org/10.1101/2022.06.30.497551>



## PUBLICATIONS

2022  
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2022

- **Nest shape influences colony organization in ants: spatial distribution and connectedness of colony members differs from that predicted by random movement and is affected by nest space**

bioRxiv Preprint

- Coauthored with Nichols, W., and Dornhaus A.

2022  
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2022

- **Temnothorax rugatulus ants do not change their nest walls in response to environmental humidity**

bioRxiv Preprint

- Coauthored with Faron W., and Dornhaus A.

2021  
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2021

- **A hymenopteran odorant alerts flies to bury eggs**

bioRxiv Preprint

- Coauthored with Davis, S. M., Maurer, M. M., Trejo, J. E., Garcia, R. J., & Schlenke, T. A.

2020  
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2020

- **ABCTracker: an easy-to-use, cloud-based application for tracking multiple objects**

arXiv Preprint

- Coauthored with Rice, L., Tate, S., Farynyk, D., Sun, J., Charbonneau, D., ... & Shin, M. C.

2017  
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2017

- **Intraindividual behavioral variability predicts foraging outcome in a beach-dwelling jumping spider**

Scientific reports

- Coauthored with Lichenstein, J.L.L., Pruitt J.N.

I have made meaningful contributions to my research community. Now I work to help others make a difference in their research communities and society.



## PUBLISHED DATASETS

2022  
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2022

- **Zenodo data repository for DOI: <https://doi.org/10.1101/2022.06.30.498314>**

Zenodo dataset

- Nest shape influences colony organization in ants: spatial distribution and connectedness of colony members differs from that predicted by random movement and is affected by nest space (1.0.0) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.6784395>

2022  
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2022

- **Zenodo data repository for DOI: <https://doi.org/10.1101/2022.06.30.498314>**

Zenodo dataset

- Temnothorax rugatulus ants do not change their nest walls in response to environmental humidity (1.0.0) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.6780270>

## OUTREACH AND SERVICE

2022  
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2022

- **ResBaz Arizona 2022**  
Tucson, AZ
  - Co-chair of ResBaz AZ 2022 organizational committee.

2022  
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2022

- **Insect Discovery Website**  
Tucson, AZ
  - Designed content for the Insect Discovery website, hosted by the UArizona Extension Program

## INVITED TALKS

2021  
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2021

- **How nest shapes can influence colony level organization**  
Small intercontinental lab meet-up on colony organization and nest architecture in social insects

2019  
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2019

- **Nest architecture may influence ants the same was buildings influence humans**  
Advances in Complex Systems: From Ecology to Economics - Lake Como School of Adv. Studies

2019  
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2019

- **The influence of nest architecture on colony level organization in ants**  
UArizona SIAM Seminar series

## SELECTED AWARDS

2021  
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2021

- **Carruth Award for Graduate Student Excellence**
  - \$500

2020  
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2020

- **GIDP - EIS Program Education Award**
  - \$250

2019  
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2019

- **NSF Graduate Research Fellowship, Award Accepted**
  - \$300,000