# 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

## 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

2017 | 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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https://github.com/Gchism94

https://gchism.netlify.app/

https://www.linkedin.com/in/greg_chism_b0185a222/


## RELEVANT SKILLS

- R
- Biostatistics
- Open Science
- Bash
- Python


*Made with the R package **pagedown**.*

*The source code is available on github.com/Gchism94/cv.*

*Last updated on 2022-07-30.*

2021 | 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

2020 | 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 | 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 | 2019

### KEYS High school student Mentor

Tucson, AZ — University of Arizona

- Mentored an advanced high school student in data etiquette and hypothesis testing

2018 | 2018

### SARSEF High school Student Mentor

Tucson, AZ — University of Arizona

- Mentored three high school students in data etiquette and hypothesis testing

## PROFESSIONAL DEVELOPMENT

2022 | 2022

### Developing the Data Science Classroom

RStudio::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.

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

2022 | 2022

### Data Carpentries Instructor

Tucson, AZ — University of Arizona

- Trained to provide high quality data science workshops that are inclusive and broad reaching

2018 | 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 | 2022

### NestArchOrg

GitHub repository

- Zenodo published research compendium to reproduce results from DOI: https://doi.org/10.1101/2022.06.30.498314

2022 | 2022

### HumidityProject

GitHub repository

- Zenodo published research compendium to reproduce results from DOI: https://doi.org/10.1101/2022.06.30.497551

## PUBLICATIONS

2022 | 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 | 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 | 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 | 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.

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

2017 | 2017

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

Scientific reports

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

## PUBLISHED DATASETS

2022 | 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 | 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

## PRESENTATIONS

2021 | 2021

### How nest shapes can influence colony level organization

Small intercontinental lab meet-up on colony organization and nest architecture in social insects

- Invited talk

2019 | 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

- Invited talk

2019 | 2019

### The influence of nest architecture on colony level organization in ants

UArizona SIAM Seminar series

- Invited talk

## GRANTS

2021 | 2021

### Carruth Award for Graduate Student Excellence

- $500

2020 | 2020

**GIDP – EIS Program Education Award**

· $250

2019 | 2019

**NSF Graduate Research Fellowship, Award accepted**

· $300,000