



GREG CHISM

EDUCATION

2022
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2017

- **Ph.D. Entomology and Insect Science (minor in EEB)**
University of Arizona  Tucson, AZ
 - 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
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2014

- **B.S. Zoology**
University of California Santa Barbara  Santa Barbara, CA
 - Advisors: Drs. Armand Kuris, Kevin Laugherty, Jonathan Pruitt
 - Investigation into the food web of sandy beach arthropods.
 - Probing animal personality of sandy beach jumping spiders and social spiders
 - Graduated distinction within major (EEMB)

2014
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2012

- **A.A. Biology**
Shasta Community College  Redding, CA


CERTIFICATIONS

2022
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2022

- **Data Carpentries Instructor**
The Carpentries
 - Trained to provide high quality data science workshops that are inclusive and broad reaching


RELATED WORK EXPERIENCE

Current
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2022

- **Computational and Data Science Educator**
University of Arizona  Tucson, AZ
 - 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

View this CV online with links at https://gregtchism.netlify.app/cv/gchism_cv.pdf/

CONTACT

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 [Gchism94](https://github.com/Gchism94)
 gregtchism.netlify.app
 [linkedin](#)

RELEVANT SKILLS

Programming/Software

R/RStudio
R Markdown/Quarto
Git/GitHub
Shiny
Python
Bash
Docker
CyVerse
OpenRefine
HTML/CSS/SCSS
Mathematica
Microsoft Office Suite
Netlogo/Agent-Based Models

Data Science

Data Visualization
Biostatistics
Open Science
Computational Thinking
Containers
Biological Modeling
Image/Video Analysis
Website Design

Made with [pagedown](#): [Source code](#).

Last updated on 2022-08-26.

2022
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2021

- **CALS Data Science Ambassador**
University of Arizona 📍 Tucson, AZ
 - Provided data science consultations, resources, and referrals
 - Attended and assisted in R weekly workshops led by Dr. Jeffrey Oliver

2022
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2021

- **Honors College Graduate Mentor**
University of Arizona 📍 Tucson, AZ
 - Mentored nine undergraduate and graduate students towards developing competitive scholarship applications

2021
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2018

- **Graduate College Fellowship Application Mentor**
University of Arizona 📍 Tucson, AZ
 - Mentored over 70 NSF Graduate Research Program and other graduate fellowship applicants
 - Three women in STEM applicants were awarded NSF Graduate Research Fellowships
 - Contributed Graduate Student Spotlight article as an NSF GRF recipient



TEACHING AND MENTORSHIP

2022

- **Data Science Fellows**
University of Arizona 📍 Tucson, AZ
 - Educated health and biomedical postdocs in open science in a program that developed, exchanged, and created data science expertise

2022

- **Roots for Resilience (R4R)**
University of Arizona 📍 Tucson, AZ
 - Educated senior grad students across several disciplines to use data science techniques to encourage discoveries within their domains

2022

- **Research Compendium Using GitHub and RStudio**
University of Arizona 📍 Tucson, AZ
 - Created and taught a workshop series on reproducible research compendium using GitHub and RStudio
 - Created a companion Quarto book for asynchronous learners

2022

- **Exploratory Data Analysis in R Workshop Series**
University of Arizona 📍 Tucson, AZ
 - Created and taught a workshop series on exploratory data analysis using the dlookr R package
 - Created a companion Quarto book for asynchronous learners

- 2022 ● **KEYS Program Educator** 📍 Tucson, AZ
 University of Arizona

 - Created and implemented an interactive Open Science and Machine Learning Curriculum for Title I high school seniors
 - Taught introduction to R/RStudio utilizing RStudio Cloud
- 2020 | 2018 ● **Undergraduate Research Mentor** 📍 Tucson, AZ
 University of Arizona

 - 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 from the Southwest through four on-campus workshops
 - Gave on-site interactive demonstrations on insect science at the Flandrau Planetarium
- 2019 ● **KEYS High School Student Mentor** 📍 Tucson, AZ
 University of Arizona

 - Mentored an advanced high school student in data etiquette and hypothesis testing
- 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 ● **Foundational Open Science Skills (FOSS)** 📍 Tucson, AZ
 University of Arizona

 - CyVerse's workshop series on collaborative open science using cutting-edge, open source cyberinfrastructure, in a collaborative, hands-on setting
- 2022 ● **Developing the Data Science Classroom**
 RStudio::conf(2022)

 - Workshop that equipped educators with a pedagogical approach to utilizing R and RStudio for teaching in a data science classroom setting.
- 2022 ● **Basic & Advanced Container Camp** 📍 Tucson, AZ
 University of Arizona

 - CyVerse's Basics and Advanced workshops on container technologies which emphasized sharing, scaling, and reusing tools and workflows for all types of computational analyses

- 2018 ● **Data-driven Ecological Synthesis 2018**
Université de Montréal  Montreal, Canada
- Week-long course towards applying the R programming language to answer a diversity of biological questions
- 2017 ● **Intro to Modeling in Biology (ECOL 519)**
University of Arizona  Tucson, AZ
- Exploring the role of biological modeling with hands-on examples in Mathematica

PUBLISHED TEACHING CURRICULUM

- 2022 ● **Data7 EDA in R Workshop Series**
Zenodo
- Companion materials and Quarto Book for my [Exploratory Data Analysis in R workshop series](#)
- 2022 ● **Data7 Reproducible Research with GitHub and RStudio Workshop Series**
Zenodo
- Companion materials and Quarto Book for my [Reproducible Research with GitHub and RStudio Workshop Series](#)
- 2022 ● **Data7 KEYS Internship Open Science Materials**
Zenodo
- Companion Quarto presentations and R Markdown for my KEYS internship open science curriculum

PUBLISHED RESEARCH COMPENDIUM

- 2022 ● **AntColonyPerformance**
Zenodo
- GitHub repository for a research compendium to reproduce in preparation research
- 2022 ● **NestArchOrg**
Zenodo
- GitHub repository for a research compendium to reproduce results from DOI: <https://doi.org/10.1101/2022.06.30.498314>
- 2022 ● **HumidityProject**
Zenodo
- GitHub repository for a research compendium to reproduce results from DOI: <https://doi.org/10.1101/2022.06.30.497551>



PUBLISHED RESEARCH

- 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 ● **Temnothorax rugatulus ants do not change their nest walls in response to environmental humidity**
bioRxiv Preprint
· Coauthored with Faron W., and Dornhaus A.
- 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 ● **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 ● **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 ● **Data repository for DOI: <https://doi.org/10.1101/2022.06.30.498314>**
Zenodo
· 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 ● **Data repository for DOI: <https://doi.org/10.1101/2022.06.30.498314>**
Zenodo
· 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 ● **Industry Careers in Data Science Speaker Series**
University of Arizona
 - Developed and hosted a speaker series that focused on academics that transitioned to industry careers in data science
- 2022 ● **RStudio Connect Landing Page**
University of Arizona
 - Built a launch page with interactive user metrics and monthly project highlights
 - Expected completion: October, 2022
- 2022 ● **ResBaz Arizona 2022**
University of Arizona
 - Co-chair of ResBaz AZ 2022 organizational committee
- 2022 ● **Insect Discovery Website**
University of Arizona
 - Designed content for the Insect Discovery website, hosted by the UArizona Extension Program



INVITED TALKS

- 2021 ● **How nest shapes can influence colony level organization**
Small intercontinental lab meet-up on colony organization and nest architecture in social insects
- 2019 ● **Nest architecture may influence ants the same way buildings influence humans**
Advances in Complex Systems: From Ecology to Economics - Lake Como School of Adv. Studies
- 2019 ● **The influence of nest architecture on colony level organization in ants**
UArizona SIAM Seminar series



SELECTED AWARDS

- 2021 ● **Carruth Award for Graduate Student Excellence**
\$500
- 2020 ● **GIDP - EIS Program Education Award**
\$250
- 2019 ● **NSF Graduate Research Fellowship, Award Accepted**
\$300,000