GREG CHISM

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

EDUCATION

2022 | 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 | 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 | 2012

A.A. Biology

Shasta Community College — Redding, CA

CERTIFICATIONS

2022 | 2022

Data Carpentries Instructor

The Carpentries

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

RELATED WORK EXPERIENCE

Current | 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

CONTACT

- gchism@arizona.edu
- 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 | 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 | 2021

Honors College Graduate Mentor

University of Arizona — Tucson, AZ

- Mentored nine undergraduate and graduate students towards developing competitive scholarship applications

2021 | 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 reproducuble 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

University of Arizona — Tucson, AZ

- Created and implemented an interactive Open Science and Machine Learning Curriculum for Title I high school seniors
- Taught introduction to R/RStudio utilyzing RStudio Cloud

2020 | 2018

Undergraduate Research Mentor

University of Arizona — Tucson, AZ

- Nine students mentored in producing publication quality data
- Two students are coauthors on publications

2019 | 2018

Insect Discovery Teaching Assistant

University of Arizona — Tucson, AZ

- 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

University of Arizona — Tucson, AZ

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

2018

SARSEF High School Student Mentor

University of Arizona — Tucson, AZ

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

PROFESSIONAL DEVELOPMENT

2022

Foundational Open Science Skills (FOSS)

University of Arizona — Tucson, AZ

- 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 utiluzing R and RStudio for teaching in a data science classroom setting.

2022

Basic & Advanced Container Camp

University of Arizona — Tucson, AZ

- 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

- Compantion 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 was 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

REFERENCES

Anna Dornhaus (Ph.D.)
dornhaus@arizona.edu

- Professor
- Ecology and Evolutionary Biology
- The University of Arizona

Jeffrey Oliver (Ph.D.)
joliver@arizona.edu

- Data Science Specialist
- University Libraries
- The University of Arizona

Maliaca Oxnam (M.A.)
maliaca@arizona.edu

- Deputy Director
- Data Science Institute
- The University of Arizona

Nirav Merchant (Ph.D.)
nirav@arizona.edu

- Director/Co-PI
- Data Science Institute/CyVerse
- The University of Arizona