

Education

Ph.D. Statistics

2019 – present

Colorado State University

Dissertation: *Statistical inference on reproducibility in high-throughput experiments.*

Advisor: Wen Zhou

GPA: 3.927

B.S. Statistics; B.A. Mathematics

2015 – 2019

Winona State University

GPA: 4.0

Professional Experience

Colorado State University

2019 – present

Fort Collins, CO

- Graduate Teaching Assistant
- Graduate Research Assistant

SU2020, SU2021, SU2022

Winona State University

2018 – 2019

Winona, MN

- TRIO One-on-One Statistics Tutor

National Science Foundation Research Experience for Undergraduates

SU2018

Fort Collins, CO

- Undergraduate Statistical Consultant

Teaching Experience

Colorado State University

Instructor

Introduction to Applied Statistics (STAT301)

F2020, S2021, F2021, S2022, F2022, S2023

Statistics Supplement (STAT302A)

F2023, S2024

Interim Emergency Instructor

Statistics Supplement (STAT302A)

F2022, S2023

(Stepped in midway through the semester.)

Undergraduate Mentor

Statistical Research - Design, Data, Methods (STAT472)

F2022

Assistant Course Coordinator

Introduction to Applied Statistics (STAT301)

S2023, F2023, S2024

Course Developer

Statistics Supplement (STAT302A)

SU2023

Intermediate Applied Statistical Methods (STAT331)

SU2023

Grader

Intro to Theory and Practice of Statistics (STAT315)	F2019
Introduction to Applied Statistics (STAT301)	S2020
Data Analysis and Regression (STAT540)	F2021
Statistical Consulting Skills (STAT555)	S2022

Recitation Instructor

General Statistics (STAT201)	F2019, S2020
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Short Course Instructor/Facilitator

Coding & Cookies: Reproducible Reports Using RMarkdown, Colorado State University	F2022, F2023
Coding & Cookies: Data Visualization Using ggplot2, Colorado State University	S2023

Research Interests

Multiple testing procedures.

Replicability/Reproducibility and its application in high-throughput experimentation.

Statistical applications in sports.

Publications

Evans RC, **Ellingworth A**, Cashen CJ, Weinberger CR, Sambur JB. Influence of single-nanoparticle electrochromic dynamics on the durability and speed of smart windows. *Proc Natl Acad Sci USA*. 2019 Jun 25; 116(26): 12666-12671.

In Progress

Ellingworth A, Ghosh D, Zhao Z, Zhou W. Reproducible or not: a nonparametric procedure to assess reproducibility across high-throughput studies. *In preparation*.

Presentations

“Reproducible or not: a data adaptive nonparametric procedure to define and assess reproducibility across high-throughput studies,” EcoSTA, Tokyo, JP (Virtual). 8/2023. (Invited Presentation)

“Reproducible or not: a data adaptive nonparametric procedure to define and assess reproducibility across high-throughput studies,” WNAR, Anchorage, AK. 6/2023. (Invited Presentation)

“A data adaptive rank-based procedure for assessing reproducibility of highthroughput experiments,” WNAR, Virtual, 6/2022. (Student Paper Oral Presentation)

“Constrained Spline Estimation of the Particle-Particle Interaction in Nanostructured Tungsten Oxide,” Research Experiences for Undergraduates Symposium, Alexandria, VA. 10/2018. (Poster Presentation)

Awards

Distinguished Service Award	Colorado State University Department of Statistics	2023
Outstanding Graduate in Statistics	Winona State University	2019
Best Overall Team	MinneMUDAC Data Analytics Competition	2017

Review Service

Journal Referee	Electronic Journal of Statistics
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Departmental and University Service

Student Representative	Winona State University Dean's Advisory Council	2017-2019
Vice President	Winona State University Statistics Club	2018-2019

Professional Development

Member	Colorado State University Statistics Teaching/Pedagogy Working Group	<i>2022-present</i>
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Technical skills

Software and Languages	R, \LaTeX , Excel, JMP, MATLAB, and Tableau
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