

## Education

<b>Ph.D. Statistics</b> Colorado State University <i>Dissertation: Statistical inference on reproducibility in high-throughput experiments.</i> <i>Advisor: Wen Zhou</i> GPA: 3.927	2019 – present
<b>B.S. Statistics; B.A. Mathematics</b> Winona State University GPA: 4.0	2015 – 2019

## Professional Experience

<b>Colorado State University</b> Fort Collins, CO <ul style="list-style-type: none"><li>Graduate Teaching Assistant</li><li>Graduate Research Assistant</li></ul>	2019 – present  SU2020, SU2021, SU2022
<b>Winona State University</b> Winona, MN <ul style="list-style-type: none"><li>TRIO One-on-One Statistics Tutor</li></ul>	2018 – 2019
<b>National Science Foundation Research Experience for Undergraduates</b> Fort Collins, CO <ul style="list-style-type: none"><li>Undergraduate Statistical Consultant</li></ul>	SU2018

## Teaching Experience

<b>Colorado State University</b> <b>Instructor</b> <ul style="list-style-type: none"><li>Introduction to Applied Statistics (STAT301)</li><li>Statistics Supplement (STAT302A)</li></ul>	F2020, S2021, F2021, S2022, F2022, S2023 F2023, S2024
<b>Interim Emergency Instructor</b> <ul style="list-style-type: none"><li>Statistics Supplement (STAT302A) (Stepped in midway through each semester.)</li></ul>	F2022, S2023
<b>Undergraduate Mentor</b> <ul style="list-style-type: none"><li>Statistical Research - Design, Data, Methods (STAT472)</li></ul>	F2022
<b>Assistant Course Coordinator</b> <ul style="list-style-type: none"><li>Introduction to Applied Statistics (STAT301)</li></ul>	S2023, F2023, S2024, SU2024
<b>Course Developer</b> <ul style="list-style-type: none"><li>Statistics Supplement (STAT302A)</li><li>Intermediate Applied Statistical Methods (STAT331)</li></ul>	SU2023 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	F2022, F2023
Coding & Cookies: Data Visualization Using ggplot2	S2023
Coding & Cookies: Tidy Data in R	S2024

## Research Interests

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Multiple testing procedures.

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

Statistical applications in sports.

## Publications

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### Published

Evans, R.C., **Ellingworth A.**, Cashen C.J., Weinberger C.R., Sambur J.B. (2019). 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.

### Submitted/In Preparation

**Ellingworth, A.**, Ghosh, D., Zhao, Z., and Zhou, W. (2024+). Reproducible or not: a data adaptive non-parametric procedure to define and assess reproducibility across high-throughput studies. To be submitted.

**Ellingworth A.**, Wang, Y.X.R., Lin, Y., Tong, X., and Zhou, W. (2024+). Assessing the reproducibility of results across multiple high-throughput studies using Kendall's  $W$ . To be submitted.

## Presentations

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"Reproducible or not: a data adaptive nonparametric procedure to define and assess reproducibility across high-throughput studies," WNAR, Fort Collins, CO. 6/2024. (Student Paper Oral Presentation)

"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***

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<b>Boes Award for Excellence in Teaching</b>	Colorado State University Department of Statistics	2024
<b>Distinguished Service Award</b>	Colorado State University Department of Statistics	2023
<b>Outstanding Graduate in Statistics</b>	Winona State University	2019
<b>Best Team</b>	MinneMUDAC Data Analytics Competition	2017

## ***Service***

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### **Professional Service**

<b>Journal Referee</b>	Electronic Journal of Statistics
<b>Student Committee Member</b>	WNAR (2024)

### **Departmental and University Service**

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

## ***Professional Development***

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<b>Professional Memberships</b>	American Statistical Association, International Biometric Society
<b>Departmental Memberships</b>	Colorado State University Statistics Teaching/Pedagogy Working Group
<b>Attendee</b>	2024 Preparing to Teach Workshop

## ***Technical skills***

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<b>Software and Languages</b>	R, $\text{\LaTeX}$ , Excel, JMP, MATLAB, and Tableau
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