Austin Ellingworth

✉ aellingworth15@gmail.com
📞 507-995-0592
Updated: September 18, 2024

Education

Ph.D. Statistics *2019 – present*
Colorado State University

Dissertation: Statistical inference on reproducibility in high-throughput experiments.
Advisor: Wen Zhou

M.S. Statistics *2019 – 2024*
Colorado State University

B.S. Statistics; B.A. Mathematics *2015 – 2019*
Winona State University

Teaching Experience

Colorado State University
Instructor

Introduction to Applied Statistics (STAT301)	*F2020, S2021, F2021, S2022, F2022, S2023*
Statistics Supplement (STAT302A)	*F2023, S2024, F2024*
Introduction to R Programming (STAT158)	*SU2024*

Interim Instructor

Statistics Supplement (STAT302A)	*F2022, S2023*

Assumed instructional duties midway through each semester due to emergency.

Research Mentor

Statistical Research - Design, Data, Methods (STAT472)	*F2022*

Advised capstone research projects for two groups of upper-level undergraduate students.

Assistant Course Coordinator

Introduction to Applied Statistics (STAT301)	*S2023, F2023, S2024, SU2024, F2024*

Graduate Teaching Assistant Mentor

Introduction to Applied Statistics (STAT301)	*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*

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

Multiple testing procedures

Replicability/reproducibility and its application in high-throughput experimentation

Statistical genomics

Statistical applications in sports

Publications

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., Zhou, W., and Zhao, H. (2024+). Assessing the reproducibility of results across multiple high-throughput studies using Kendall's W. To be submitted.

Presentations

"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)

Professional Experience

Colorado State University *2019 – present*
Fort Collins, CO

Graduate Teaching Assistant
Graduate Research Assistant *SU2020, SU2021, SU2022*

Statistical consultant for the Crab Lab, a Colorado State University Biology lab focused on studying the mechanisms which control the molting process in crabs.

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

Awards

Boes Award for Excellence in Teaching	Colorado State University Department of Statistics	*2024*
Distinguished Service Award	Colorado State University Department of Statistics	*2023*
Outstanding Graduate in Statistics	Winona State University	*2019*
Best Team	MinneMUDAC Data Anayltics Competition	*2017*

Service

Professional Service

Journal Referee	Electronic Journal of Statistics	
Student Co-Chair	WNAR	*F2024*
Student Committee	WNAR	*S2024*

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

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

Technical skills

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