Emily A. Robinson

Ph.D. Candidate, Statistical Consultant

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Overview

3+ years of teaching experience with introductory statistics and HS geometry. 2.5+ years of statistical consulting experience working with more than 75 clients. 3 summers applying statistics for different industry functions.

Education

Degrees

Ph.D. in Statistics

3.98 Cumulative GPA

August 2019 - Expected August 2022 Lincoln, NE

University of Nebraska - Lincoln

M.S. in Statistics

August 2017 - May 2019

University of Nebraska - Lincoln

Lincoln, NE

4.0 Cumulative GPA

B.S. in Statistics & B.S. in Secondary Math Education

August 2013 - May 2017

Winona State University

Winona, MN

Honors: Summa Cum Laude, Mu Sigma Rho, Pi Mu Epsilon

3.98 Cumulative GPA

Certifications

5-12 Mathematics Teaching License

State of Minnesota - Department of Education

Issued May 2017 - Expires June 2023

Minnesota

File Folder Number: 500935

Scholarship

Publications

- 1. [In Preparation] Robinson, E. A., VanderPlas, S., Howard, R., (2021) Eye Fitting Straight Lines in the Modern Era. Target journal: Journal of Computational and Graphical Statistics. Access on GitHub here.
- 2. [In Preparation] Ortez, O. A., McMechan, A. J., Hoegemeyer, T., Robinson, E. A., Howard, R. & Elmore, R. W. (2021) Abnormal ear development in corn: does hybrid, environment, and seeding rate matter? Target journal: Field Crops Research.
- 3. [Under Review] Carmona G. I., Robinson, E. A., Rosa, A. T., Proctor C. A. & McMechan A. J. (2021) Cover crop planting and termination dates influence arthropod activity in the following corn. Submitted to Journal of Economic Entomology.
- 4. [Under Review] Ongaratto, S., Baldin, E. L., Hunt, T. E., Montezano, D. G., Robinson, E. A., Heier, K., & Santos, M. C. (2021) Larval movement of Anticarsia gemmatalis (Lepidoptera: Erebidae) on vegetative and reproductive stage non-Bt soybean. Submitted to Journal of Pest Science.
- 5. Reinders, J. D., Reinders, E. E., French, B. W., Robinson, E. A. & Meinke, L. J. (2021) Evidence of western corn rootworm resistance to Cry3Bb1 + Cry34/35Ab1 maize in Nebraska. Submitted to Journal of Economic Entomology. doi: 10.1002/ps.6752
- 6. Krueger, A. J., Robinson, E. A., Weissling, T. J., Vélez, A. M., & Anderson, T. D. (2021) Chemical combinations reduce growth and survival of monarch butterflies. Journal of Economic Entomology. doi: 10.1093/jee/toab169

- Reinders, J. D., Wangila, D. S., Robinson, E. A., French, B. W., & Meinke, L. J. (2021) Characterizing the relationship between western corn rootworm (Coleoptera: Chrysomelidae) larval survival on Cry3Bb1-expressing corn and larval developmental factors. *Journal of Economic Entomology*. doi: 10.1093/jee/toab151
- 8. Ongaratto, S., Baldin, E. L., Hunt, T. E., Montezano, D. G., **Robinson, E. A.**, & Santos, M. C. (2021). Effects of intraguild interactions on *Anticarsia gemmatalis* and *Chrysodeixis includens* larval fitness and behavior in soybean. *Pest Management Science*. doi: 10.1002/ps.6330

Presentations

- 1. [Abstract Accepted] **Robinson, E. A.** (Februrary, 2022). Friday Fun Days: Hands-on experience and peer mentoring in a master's level consulting course. *Conference on Statistical Practice*. New Orleans, LA.
- 2. **Robinson, E. A.** (October, 2021). Human Perception of Statistical Charts: An Introduction to Graphical Testing Methods. *UNL Nerd Nite*. Lincoln, NE. Access slides here.
- 3. **Robinson, E. A.**, VanderPlas, S., & Howard, R. (October, 2021). Pandemic Dilemmas: Human perception of exponentially increasing data displayed on a log scale evaluated through experimental graphics tasks. *Women in Statistics and Data Science*. Virtual. Access slides here.
- 4. **Robinson, E. A.** (September, 2021). Eye Fitting Straight Lines in the Modern Era. *Midwest Women in Science Conference*. Hosted virtually by University of Chicago. Access slides here.
- 5. **Robinson, E. A.**, VanderPlas, S., & Howard, R. (August, 2021). Pandemic Dilemmas: Human perception of exponentially increasing data displayed on a log scale evaluated through experimental graphics tasks. *Joint Statistical Meetings*. Virtual. Access slides here.
- 6. **Robinson**, E. A., VanderPlas, S., & Howard, R. (April, 2021). You Draw It with r2d3. *Iowa State Graphics Group*. Virtual. Access slides here.
- 7. **Robinson, E. A.**, VanderPlas, S., & Howard, R. (Februrary, 2021). Do logs work during a pandemic? Perception of exponentially increasing data. *Iowa State Graphics Group*. Virtual. Access slides here.

Research Experience

Research

Ph.D. Thesis at University of Nebraska - Lincoln

Lincoln, NE

Co-Advisers: Susan VanderPlas and Reka Howard

May 2020 - Present

Dissertation Topic: Human perception of exponentially increasing data displayed on a log scale evaluated through experimental graphics tasks. GitHub repository available here.

Genomic Prediction Graduate Research Assistant

Lincoln, NE

Advisor: Reka Howard

Summer 2018

Consulting Experience

Consulting

Statistical Cross-disciplinary Consulting and Collaboration Lab (SC3L) Lincoln, NE University of Nebraska - Lincoln

January 2019 - Present

75+ clients, 100+ projects, 7 publications

Work one-on-one with clients to design experiments, conduct power analyses, summarize data, conduct statistical analyses, interpret results, and provide written research reports.

Collaborate on graduate theses and manuscripts for peer reviewed journal publication.

Mentor students on leading meetings, running analysis, and writing reports.

Lead hands-on activities in introductory consulting class once a week.

Mentoring	STAT 825: Principles of Statistical Consulting (3 credit hours), SC3L STAT 930: Advanced Statistical Consulting (2 credit hours), SC3L AS STAT 825: Principles of Statistical Consulting (3 credit hours), SC3L STAT 930: Advanced Statistical Consulting (2 credit hours), SC3L AS STAT 825: Principles of Statistical Consulting (3 credit hours), SC3L	Assistant Spring 2021 Assistant Fall 2020 Spring 2020	
	Teaching Experience		
UNL	Graduate Teaching, Instructor of Record Department of Statistics, University of Nebraska - Lincoln Average instructor rating: 3.75/4.	Lincoln, NE August 2017 - May 2019	
	STAT 380: Statistics and Applications (3 credit hours) STAT 218: Introduction to Statistics (3 credit hours) STAT 218: Introduction to Statistics (3 credit hours) STAT 218: Introduction to Statistics (3 credit hours), Co-Instructor	Spring 2019 Fall 2019 Spring 2018 Fall 2018	
RPHS	Secondary Mathematics Student Teaching Experience Rushford-Peterson High School	Rushford, MN Spring 2017	
	HS Geometry (3 Sections) College Algebra Prep (1 Section) Alternative Mathematics (1 Section)		
Tutoring	Sylvan Learning Center, Sioux Falls, SD Math Achievement Center, Winona State University Industry Experience	Summer 2017 January 2014 - May 2016	
Industry	Berkley Human Services Actuarial Internship	Minneapolis, MN Summer 2017	
	John Deere Financial Credit Risk Internship	Johnston, IA Summer 2016	
	John Deere Headquarters Statistics Internship Skills	Moline, IL Summer 2015	
Technical Skills	Proficient in: R/RStudio, RShiny, RMarkdown, SAS, Latex, Git/GitHub. Familiar with: Python, SQL, Databases, Tableau, MPlus, SPSS, JavaScript, D3.js.		
	Honors and Awards		
Scholarships	Chancellor's Fellowship, University of Nebraska - Lincoln Lorena W. Jacobson Scholarship, Winona State University	2017 2014-2017	
Competitions	MinneMUDAC, team won best serendipitous discovery. (MinneAnal Midwest Undergrad Data Analytics Competition, team recieved 3rd Midwest Undergrad Data Analytics Competition, participation. (WS	place. (WSU) 2016	

Professional Development

Professional membership	American Statistical Association	March 2015 – Present
Short Courses	Preparing to Teach	Virtual
and Workshops	ASA Section on Statistics and Data Science Education	August 2021
	Evolution of Bayesian Software in SAS	Virtual
	Applied Statistics in Agriculture and Natural Resources	May 2021
	Navigating Tough Conversations in Statistical Collaboration	Virtual
	Conference on Statistical Practices (CSP)	February 2021
	Introduction to Business Data Analysis in Python	Lincoln, NE
	Holland Computing Center (HCC)	January 2020
	Teaching Data Science	Denver, CO
	Joint Statistical Meetings (JSM)	July 2019
	Service and Leadership	
JSM	Session Chair: Time Series Analysis and Visualization	August 2021
CSP	Session Chair: Health Care Applications	February 2021
USPROC	Judge: Undergraduate Statistics Project Competition	July 2021
NCUWM	Table Host: Undergraduate Women in Mathematics Networking Din	ner Februrary 2020
UNL	Statistics Graduate Student Association, President	July 2019 – June 2021
	ASUN Graduate Student Assembly, Statistics Representative	August 2019 - May 2020
	Professional Development Committee	August 2019 - May 2020
	IANR/CASNR Graduate Student Committee, Statistics Representative	e August 2018 - May 2019
WSU	Math/Stat Club, President Janu	ary 2014 - December 2016
Community	Serve in the Community, Southwood Lutheran Church	January 2020 - Present
Service	Youth Fellowship Leader, Southwood Lutheran Church	May 2018 - Present
	Amigos for Christ, Chinandega, Nicaragua	May 2019
	Kids First, Winona, MN Janu	ary 2016 - December 2017
	Jamaica Travel Study, Winona State University	March 2016