Emily A. Robinson

PH.D. STUDENT, STATISTICAL CONSULTANT

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Education

University of Nebraska - Lincoln   *Lincoln, NE*
PH.D. IN STATISTICS, M.S IN STATISTICS   *August 2017 - Expected May 2022*
- 3.98 Cumulative GPA

Winona State University   *Winona, MN*
B.S. IN STATISTICS, B.S. TEACHING IN SECONDARY MATHEMATICS EDUCATION *summa cum laude*   *August 2013 - May 2017*
- Honors: Mu Sigma Rho, Pi Mu Epsilon, Dean's List all terms, 4.0 Cumulative GPA

Certifications

5 - 12 Mathematics Teaching License   *Minnesota*
STATE OF MINNESOTA - DEPARTMENT OF EDUCATION   *Issued May 2017 - Expires June 2023*
- File Folder Number: 500935

Technical Skills

Expertise: R/RStudio, Shiny, Markdown, SAS, Latex
Familiarity: Python, SQL, Git/Github, Tableau, MPlus, SPSS, JavaScript, D3.js

Research Experience

Thesis Work   *Lincoln, NE*
MAJOR ADVISOR: SUSAN VANDERPLAS   *May 2020 - Present*
- Dissertation Topic: Perception and decision making using statistical graphics.

Statistical Consultant   *Lincoln, NE*
UNIVERSITY OF NEBRASKA - LINCOLN, STATISTICAL CROSS-DISCIPLINARY COLLABORATION AND CONSULTING LAB (SC3L)   *January 2019 - Present*
- During my time working as a statistical consultant, I worked with more than 65 clients one-on-one to design experiments, conduct power analyses, summarize data, and conduct statistical analyses. I have collaborated on graduate thesis as well as manuscripts for peer reviewed journal publication.

Research Assistant   *Lincoln, NE*
REKA HOWARD, PH.D   *May 2018 - August 2018*
- Created a code pipeline for genomic prediction in Pinus taeda using Bayesian Generalized Linear Regression. Performed prediction using high dimensional genomics data and environmental information via multiple cross validation methods.

Teaching Experience

Graduate Teaching Assistant (Instructor of Record)   *Lincoln, NE*
UNIVERSITY OF NEBRASKA - LINCOLN   *August 2017 - May 2019*
- STAT 380, Statistics and Applications, 3 credit hours, Instructor of Record (Spring 2019)
  (Calculus based introductory statistics course. Text used: "Probability and Statistics for Engineers and Scientists," 9th Edition by Walpole et al.)
- STAT 218, Introduction to Statistics, 3 credit hours, Instructor of Record (Spring 2018, Fall 2019), Co-Instructor (Fall 2018)
  (Non-calculus based introductory statistics course. Text used:"Introduction to Statistical Investigations," by Tintle et al.)

Tutor   *Sioux Falls, SD*
SYLVAN LEARNING CENTER   *May 2017 - August 2017*
- Worked with three K - 8 students through reading, mathematics, and science modules. Worked one on one with high school students on ACT prep.

Mathematics Student Teacher
Rushford, MN

RUSHFORD-PETERSON SENIOR HIGH SCHOOL
January 2017 - May 2017

- Taught three sections of Geometry, a college algebra prep course, and an alternative mathematics course. Developed lesson plans, exams, and supplemental materials for learning. Aligned standards and met the 10 Standards of Effective Practice.

Teaching Field Experience
Winona, MN

WINONA JUNIOR AND SENIOR HIGH SCHOOL
August 2014 - May 2016

- Completed 100 hours of classroom experience in 6 - 12 mathematics and reading classrooms. During this time I assisted in instruction, led small group discussions, graded papers, and provided one on one tutoring time.

Mathematics Tutor
Winona, MN

WINONA STATE UNIVERSITY, MATH ACHIEVEMENT CENTER
January 2014 - May 2016

- Provided homework guidance and studying tools to students enrolled in mathematics and statistics courses ranging from college algebra to calculus III and introductory statistics courses to probability and statistical inference.

Professional Experience

Actuarial Intern
Minneapolis, MN

BERKLEY HUMAN SERVICES
May 2017 - August 2017

- Gathered and managed data on non-profit organizations. Collaborated with the Berkley Cooperate modeling team to identify common attributes between non-profits insured by the company using Tree Based Machine Learning methods.

Credit Risk Intern
Johnston, IA

JOHN DEERE FINANCIAL
May 2016 - August 2016

- Developed a portfolio liquidation model using Multinomial Logistic Regression in SAS. Created an Excel user interface using macros.

Statistics Intern
Moline, IL

JOHN DEERE HEADQUARTERS
May 2015- August 2015

- Created and coded an R-shiny application for sales forecasting validation using the dplyr and ggplot2 packages in R.

Presentations

MinneMUDAC
Minneapolis, MN

MINNEANALYTICS
November 2016

- Monthly analysis leading up to competition held at Optum and hosted by Minne Analytics in the Twin Cities of MN. Team won over $2000 in prize money for best serendipitous discovery.

Midwest Undergrad Data Analytics Competition (MUDAC)
Winona, MN

WINONA STATE UNIVERSITY, WINONA, MN
March 2016

- Overnight competition to analyze real data and answer questions of interest provided by Mayo Clinic in Rochester, MN. The team used random forest prediction methods and received 3rd place.

Midwest Undergrad Data Analytics Competition (MUDAC)
Winona, MN

WINONA STATE UNIVERSITY, WINONA, MN
March 2015

- Overnight competition to analyze water quality data from the the twin cities area.

Publications

Effects of intraguild interactions on *Anticarsia gemmatalis* and *Chrysodeixis includens* larval fitness and behavior in soybean

ONGARATTO, SABRINA; LOPES BALDIN, EDSON; HUNT, THOMAS; MONTEZANO, DÉBORA; **A. ROBINSON, EMILY**; SANTOS, MARIA
2021

- Pest Management Science: https://doi.org/10.1002/ps.6330

Characterizing the relationship between western corn rootworm (Coleoptera: Chrysomelidae) larval survival on Cry3Bb1-expressing corn and larval developmental factors

JORDAN D. REINDERS, DAVID S. WANGILA, **EMILY A. ROBINSON**, B. WADE FRENCH, LANCE J. MEINKE
In Review

- Journal of Economic Entomology

Service

Statistics Graduate Student Association, President
Lincoln, NE

UNIVERSITY OF NEBRASKA - LINCOLN
July 2019 - Present

- Responsibilities include leading orientation activities, planning monthly social events, community service projects, and providing student support.

ASUN Graduate Student Assembly, Representative
Lincoln, NE

UNIVERSITY OF NEBRASKA - LINCOLN
August 2019 - May 2020

- Responsibilities include attending monthly meetings that exercise the student governance of affairs solely involving graduate students at the university, as well as collaborate with the ASUN Senate, officers, and committees on issues affecting the entirety of the university's student body.

Professional Development Committee, Member
Lincoln, NE

UNIVERSITY OF NEBRASKA - LINCOLN
August 2019 - May 2020

- Responsibilities include organizing professional development opportunities for graduate students at the university and approving funding to individual department organizations for professional development purposes.

IANR Graduate Student Committee, Member
Lincoln, NE

UNIVERSITY OF NEBRASKA - LINCOLN
August 2018 - May 2019

- Responsibilities include attending monthly meetings and assisting in representing all students within the Institute of Agriculture and Natural Resources.

Math/Stat Club, President
Winona, MN

WINONA STATE UNIVERSITY
January 2014 - December 2016

- Responsibilities included organizing student social and professional development events, including graduate school visits. Submit funding requests to student senate.

Professional Development

Teaching Data Science Short Course
Denver, CO

JOINT STATISTICAL MEETINGS
July 2019

- Worked through several exercises from existing courses and gained first-hand experience using relevant tool-chains and techniques, including R/RStudio, literate programming with R Markdown, and collaboration, version control, and automated feedback with Git/GitHub.

Introduction to Business Data Analysis in Python
Lincoln, NE

HOLLAND COMPUTING CENTER
January 2020

- Lessons were created using Software Carpentry materials and in the SWC style. The workshop provided hands-on experience covering basic concepts and tools, including program design, version control, data management, and task automation.