

(307) 262-1417
Lincoln, Nebraska
aker2@huskers.unl.edu

Andrew Ker

GitHub: [andrewker24](#)

EDUCATION

M.S. Statistics

University of Nebraska

Aug 2022 - Current

Relevant courses: Statistical Methods, Statistical Computing, Distribution Theory

B.S. Mathematics

University of Wyoming

Aug 2018 - May 2022

Relevant courses: Calculus(I-III), Linear Algebra, Differential Equations, Real Analysis(I-III), Abstract Algebra, Combinatorics

GPA: 3.549

B.S. Statistics

University of Wyoming

Aug 2018 - May 2022

Relevant courses: Regression Analysis, Design and Analysis of Experiments, Survival Analysis, Time Series, Theory of Statistics, Theory of Probability, Bayesian Statistics

GPA: 3.549

WORK EXPERIENCE

Teaching Assistant STAT 218

University of Nebraska

Aug 2022 - Current

Lincoln, Nebraska

- Job responsibilities include: observing mentor instructors, attending preparatory course, instruction of lectures, proctoring exams, grading assignments, and holding office hours
- Developed course outline for STAT 218

Teaching Assistant Business Calculus

University of Wyoming

Aug 2021 - May 2022

Laramie, Wyoming

- Job responsibilities included: Leading Recitation sections, grading homework assignments and quizzes, designing quizzes, proctoring exams, and holding office hours

Teaching Assistant Summer Bridge Math Program

University of Wyoming

July 2021 - Aug 2021

Laramie, Wyoming

- Summer Bridge is a program designed to help incoming freshmen adjust to college, while receiving college credits in accelerated courses
- Job responsibilities included: Assisting the instructor in classroom, answering student questions, proctoring exams, designing classroom lessons, holding office hours, attending meetings, and planning excursions for students

Mathematics and Statistics Tutor

University of Wyoming

Aug 2020 - May 2021

Laramie, Wyoming

- Worked as a tutor at the Center for Assistance with Statistics and Mathematics at the University of Wyoming
- Job responsibilities included: Tutoring students, attending tutoring trainings, reviewing classroom materials, and attending meetings to review math concepts

RESEARCH

Publications

June 2022

Projected Average Annual Cost of Crashes on the US-16 Wyoming Downgrade using Time Series Analysis and Forecasting

Ampadu, V. M K., Ksaibati, K., Wolff, S., **Ker, A.** (2022). Projected Average Annual Cost of Crashes on the US-16 Wyoming Downgrade using Time Series Analysis and Forecasting. In Review.

- Provided statistical consulting for time series methods and forecasting methods.
- Determined several appropriate ARIMA models to project the number of fatal accidents, the number of accidents with serious injuries, and the number of accidents with property damage only.
- Used estimated costs per crash to forecast future accident costs for each type of accident
- Edited and revised results sections with interpretations and conclusion section

Bachelor's Thesis

January 2022 - May 2022

Time Series Analysis of Traffic Fatalities on U.S. Route 16

- Performed Exploratory Data Analysis using WYDOT accident data on U.S. Route 16
- Used Exponential Smoothing, ARIMA, Dynamic Regression, and GLMMPQL methods to model traffic fatalities on U.S. Route 16
- Evaluated models using residual diagnostics and information criteria
- Identified important predictor variables associated with traffic fatalities
- Used models to forecast the number of fatalities and evaluated forecasts using WYDOT expertise

SKILLS

Programming	R, Python, L ^A T _E X, SAS
Soft Skills	Dependable, Resourceful
Communication	English (native), Spanish (beginner)
Other	Github, Microsoft Office