MACKENZIE MUELLER

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EDUCATION

Master of Science Biostatistics (50% Funded) | University of Michigan, *Ann Arbor, MI.* | *May 2026*   **GPA: 3.58**
BS Mathematics, BA Hispanic Studies | Pacific Lutheran University (PLU) , *Tacoma, WA.* | *May 2024*   **GPA: 3.95**

AWARDS/HONORS

50% Tuition Funding, University of Michigan Biostatistics Department
- Attained **50%** tuition scholarship due to academic achievement, renewable for program cycle on basis of GPA

WANG CENTER RESEARCH GRANT Recipient (amount: **$3,000**) *Puerto Rico* | *Jan 2024*
- Qualitative analysis: how changes in STEM education have affected engagement & accessibility for female students
- Conducted interviews with non-profits & teachers in San Juan with Human Participants Research Board approval

American Statistical Association DataFest Competition 2nd Place | *(Spring, 2023)*
- Analyzed data from the American Bar Association using text analysis and data cleaning techniques to extract valuable insights and develop an impactful and ethical **data visualization** in RStudio's **ggplot**

STATISTICAL ANALYSIS + RESEARCH EXPERIENCE

Multiple Linear Regression Inference, Linear Regression Final Project | Fall 2024
"The Impact of Sleep Trouble and Other Lifestyle and Health Factors on HDL Cholesterol"
- Applied key concepts including: Linear Regression Assumptions, Interactions, Model Selection, Model Diagnostics, Outliers, and Influence Points to create an inference model on HDL Cholesterol (written report: **10 pages**)

STATCOM Volunteer, *University of Michigan* | *2024*
- Collaborated with the Center for Success (Ann Arbor) to analyze and summarize survey data from students and mentors, providing actionable insights to improve mentoring programs through data visualization

Statistics Capstone Project: "Handling Missing Data in Epidemiology Research," *PLU* | *May 2024*
- Constructed tap water consumption linear regression models utilizing data from the National Health and Nutrition Examination Survey to demonstrate how **multiple imputation** can handle missing data (written report: **20 pages**)

Big Data Summer Institute Research Intern, *University of Michigan* | *Summer 2023*
"Predicting Survival Time of LGG Patients: Refining Feature Selection Methods"
- Collaborated with research group to analyze relationship between gene pathways & survival time for Low Grade Glioma (LGG) patients (utilized cross validation, linear regression, feature selection, Kaplan-Meier survival plots)
- Employed **6** feature selection methods including random forests, Lasso, Ridge Regression, Bagged Trees, and the Boruta Method which aimed to fit models for improved data analysis and insights on LGG cancer patients

Data Management Intern Volunteer, *Servicios Financieros Alternativos, Oaxaca, Mexico* | *Spring 2022*
- Engaged in and promoted a non-profit microloan organization specializing in providing access to self-starting businesses/indigenous groups. Tasks included balancing spreadsheets, organizing documents, and field visits

WORK EXPERIENCE

BDSI Media Intern, University of Michigan | *September 2024 - Present*
- Restructured BDSI website to assist in the grant application process for the continuation of the BDSI summer program, managed company BDSI LinkedIn, and assisted with RedCap application portal

Mathematics Tutor & Paper Grader, Pacific Lutheran University | *September 2022-May 2024*
- Provided guidance to students in group/individual settings, assisting them with struggles in mathematics coursework. Collaborated with two professors for their respective courses on grading homework assignments

Summer Camp Counselor, Flathead Lutheran Bible Camp, Lutherhaven Summer Ministries | Summers 2022, 2024
- Demonstrated leadership and organizational skills, led activities for campers while ensuring a safe and enjoyable experience at overnight summer camp. Included CHAMP camp (specifically working with kids with special needs)

SKILLS AND QUALIFICATIONS

- Software: R, Python, Java, SAS, C++, LaTeX
- Coursework: Calculus, Linear Regression, Survival Analysis, Categorical Analysis, Epidemiology, Probability Theory
- Professional Skills: Excellent Communication, Presentation and Leadership Skills, Organization, Time Management