

Muyao Lin

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EDUCATION

University of Pittsburgh, Pittsburgh, PA May 2023

Master of Arts Statistics

- **Dr. Henry Block Award for Outstanding Master's Student, 2023**

Michigan State University, East Lansing, MI Dec 2020

Bachelor of Science in Statistics, Bachelor of Science in Mathematics, Minor in Actuarial Science

- **Dean's List, 2019, 2020**

SKILLS

Technical: R, Python, SAS, Excel, Google Sheet, Excel, pandas (Python), dplyr (R), Tableau, ggplot (R), R Shiny

Statistical and Machine Learning: Hypothesis testing, Regression Analysis, Decision Trees, Classification

Soft Skills: Communication, Teamwork & Collaboration, Time Management, Adaptability, Problem-solving, Research

WORKING EXPERIENCE

Research Associate, Center for Biostatistics & Health Data Science, Virginia Tech Mar 2024 - Now

- Performed statistical analyses using R and SAS, communicating findings to support interdisciplinary research
- Conducted and reported statistical analyses to enhance interdisciplinary research collaborations

Data Analyst Intern, Changing the Present Mar – Jun 2021 , July 2023 – Mar 2024

- **Spearheaded the data team**, assisting developing Python scripts to enhance Google Drive file mapping
- **Directed** a multifaceted data team, ensuring **cross-departmental** collaboration, while refining process documentation and serving as a bridge between specialists, developers, and stakeholders
- **Pioneered** innovative operation strategies led to **20% increase** in operational efficiency, streamlining workflows and setting new benchmarks for team performance

Data Analyst Student Administrator Intern, Kunming Language Resources Inst. Jun – Sep 2017

- Offered **consultation** on marketing and education through **questionnaire design**
- Applied **categorical analysis** techniques to analyze data and implemented strategic changes, resulting in a **50% boost** in customer retention rate

Teaching Assistant, University of Pittsburgh Sep 2022 – May 2023

- Graded over **100 weekly assignments** and gave constructive feedback to elevate student performance
- Conducted weekly office hours for personalized student assistance and query resolution

Accounting Student Assistant, Michigan State University Oct 2017 – May 2019

- Introduced **Excel sheets with automated functions** to improve kitchen inventory control and **guarantee** data integrity

RESEARCH EXPERIENCE

Training Session Impact Study & Burnout Analysis, UPMC Nov 2022 – Now

- Training Session Impact Study: Evaluated the impact of training sessions on students' summary statement skills using **paired t-tests, Wilcoxon tests, and mixed-effect models**, which confirmed a **significant boost** in participant confidence and improved quality of their compositions post-session
- Burnout Analysis: Undertook **factor analysis** to unveil the intrinsic patterns, primarily targeting the **root causes** of **burnout survey research** amongst UPMC pediatric doctors and fellows

Statistical Analysis in RNA Polymerase Mutation, University of Pittsburgh Sep – Dec 2022

- Implemented **bootstrap simulations** in R to evaluate the median variance of small sample for error propagation
- Used descriptive statistics to **identify outliers** from a dataset of **1000+ biology gene** research experiment data

Genomic Analysis in Leukemia Treatment, Brown Alpert Medical School Jul – Sep 2022

- Performed **non-parametric tests** and **logistic regression** to identify the relationships between different genes and leukemia treatment outcomes
- Created 3D interactive plots using **ggplot** and **Plotly** to illustrate the correlation between genes and patient treatment outcomes

Crop Insurance Forecasting, Michigan State University Jan – Jun 2020

- **Predicted** 2019 crop insurance in R with **multiple linear regression methods**
- Identifying key predictors and increased prediction accuracy with **regularized regression method (LASSO)**
- The project poster was featured in the **Neighborhood Research Poster Initiative**