

# Muyao Lin

## 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

## WORKING EXPERIENCE

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

- Identify and address complex research questions using tailored statistical techniques and methodologies
- Design and implement **advanced statistical analyses** to support interdisciplinary research, guaranteeing **high-quality and reproducible outcomes** that meet rigorous standards
- **Summarize findings** through detailed reports, visualizations, and effective communication to collaborators
- **Mentor and assist students** in statistical methodologies, data preparation, and analysis within the **CUBE program**, enhancing their understanding and application of statistical principles

**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

## RESEARCH EXPERIENCE

**Training Session Impact Study & Burnout Analysis, UPMC**

Nov 2022 – May 2024

- Assessed the effectiveness of training sessions in enhancing students' summary statement skills through **statistical analysis** and contributed to the development of a related manuscript.
- 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

**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**