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

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***