

# RUISHAN LIN

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## EDUCATION

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**PhD, Statistical Science**, George Mason University    GPA: 3.67 (Passed Qual. Exams)    2021 - present

Co-advisors: Drs. Jonathan Auerbach and David Kepplinger

Topics: Robust Methodologies for crowd-sourced data, Bayesian Inference of Splines.

**Bachelor of Arts, Mathematics**, New York University    GPA: 3.74 (cum laude), minor in German    2016 - 2020

## QUALIFICATIONS

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- Daily use of R and project experience with SAS, Python, and MATLAB throughout academic training and within work and internship settings.
- Skilled in a wide spectrum of data science methodologies, encompassing both traditional and cutting-edge techniques such as AI/ML, web scraping, and Bayesian modeling.
- Proficient in analysis and communication of data in reports, visualizations, and RShiny applications.
- Capable of taking the initiative to lead projects autonomously while effectively collaborating with diverse stakeholders.

## SKILLS

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**Statistical Skills**    Robust Statistics, Bayesian Inference, Optimization, Causal Inference, Biostat methods

**Programming Language**    Python, C++, R (R Shiny), SAS, MATLAB, SQL, HTML, Tableau, Microsoft Office

## EXPERIENCES

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**Graduate Research Assistant**    May 2022 - present

George Mason University, Statistics Department    *Fairfax, VA*

- Develop efficient methods to estimate the arrival of spring based on crowd-sourced ecological observational data through Bayesian sampling via Stan.
- Build non-parametric statistical models based on bivariate splines and copulas to allow information borrowing across locations.

**Machine Learning Engineer Intern**    Feb. 2020 - Apr. 2021

HiThink Financial Services Inc.    *New York, NY*

- Developed chatbots that provided real-time financial information with plots and charts using tensorflow.
- Established data pipelines through a continuous process of scraping, transformation, and cleaning in Python.
- Achieved 35% growth in active users of the company's trading bot using Python, Javascript, and SQL.

**Data Science Intern**    May 2019 - Aug. 2019

10JQKA    *Hangzhou, China*

- Identified the existing issues with the company's resource allocation strategy and improved computing efficiency of the dockers by 20%.
- Analyzed the A/B test results using statistical methods to provide insights on content optimization and to target high-conversion users.

## PROJECTS

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**Missing Data Handling for Phase III Clinical Trials** | *R (RShiny), SAS*    2022

- Conducted large sample simulations to compare the results of different imputation methods under various missing data scenarios and drew conclusions on how different missing data handling approaches affect the results.
- Built an [R Shiny App](#) to demonstrate the simulation results.
- Presented the project on the **Statistics in Pharmaceuticals (SIP 2023) Conference**.

**Optimization for Neural Network** | *R*    2022

Compared the performances of neural networks with variants of Stochastic Gradient Descent and optimized the code for regression and classification.

**Stock News Catcher** | *Web Crawler, Python, NLP* 2021  
Built a chatbot and implemented it on Telegram to provide users with a personalized news feed.

**Mathematical Modeling and Simulation** | *MATLAB* 2020  
Modeled physical, biological and economical processes, and obtained successful participation award in the [Mathematical and Interdisciplinary Contest in Modeling](#)

### LEADERSHIP

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**Vice President**, Statistics Graduate Student Association, GMU Sept. 2021 - present  
**Site Ambassador**, New York University Berlin campus Jan. 2019 - May 2019

### CERTIFICATE

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**Exam P: Probability**, Society of Actuaries 2021

### AWARDS

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**Statistics in Pharmaceuticals (SIP) 2023 Scholarship**, University of Connecticut 2023  
**Graduate Research Assistantship**, George Mason University 2022 - 2023  
**Graduate Teaching Assistantship**, George Mason University 2021