

# Chuqi Wang

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## RESEARCH INTERESTS

Statistical methods and applications, statistical modeling and data mining, causal inference, biostatistics, with a focus on health-related problems, including mental health, environmental issues, food safety, public health, and other related areas. I am particularly motivated to explore statistical methods in interdisciplinary research, such as personalized medicine and mobile health.

## EDUCATION

### University of California, Irvine

*Master of Data Science*

*Irvine, CA, USA*

*Sept. 2023 – Dec. 2024*

- GPA: 3.97/4.0
- Relevant Courses: Databases & Data Management, Probability & Statistical Theory, Statistical Methods, Bayesian Data Analysis

### McGill University

*Bachelor of Science in Statistics*

*Montreal, QC, Canada*

*Sept. 2018 – May 2022*

- GPA: 3.56/4.0
- Relevant Courses: Algorithm & Data Structures, Advanced Calculus, Algebra & Analysis, Statistical Learning, Mathematical Statistics, Generalized Linear Models

## PUBLICATION

- Wang, Chuqi. "A review on 3d convolutional neural network." 2023 IEEE 3rd International Conference on Power, Electronics and Computer Applications (ICPECA). IEEE, 2023.
- Zhang, Liwen, et al. "Fineval: A chinese financial domain knowledge evaluation benchmark for large language models." arXiv preprint arXiv:2308.09975 (2023).

## EXPERIENCE

### PFAS Contamination Data Analysis Project

*Jun. 2024 – Feb. 2025*

- Collected and processed 2.5 million PFAS-related water quality records from public data sources across all 50 U.S. states.
- Conducted spatial and statistical analysis using Python to identify regional trends in PFAS contamination.
- Reviewed academic literature and applied statistical learning methods to support predictive research and contribute to a collaborative publication.

### Language Model Evaluation Research

*Jun. 2024 – Oct. 2024*

- Conducted academic literature reviews and collected domain-specific datasets to support a survey study on large language models (LLMs).
- Evaluated the performance of 19 LLMs across various reasoning and comprehension tasks using a structured benchmark.
- Co-authored a paper on the FinEval benchmark, contributing data presentation through extensive tables and figures formatted in  $\text{\LaTeX}$ .

## PROJECTS

### Stroke Prediction Using Bayesian Logistic Regression

*Feb. 2024 – Mar. 2024*

- Developed a Bayesian logistic regression model using the rstan package in R, fitted with 2000 iterations and 4 Markov chains via Markov Chain Monte Carlo (MCMC), to predict stroke occurrence based on 5110 patients' demographic, medical, and lifestyle data. Achieved a 95.2% test accuracy and improved model sensitivity through decision threshold adjustment.
- Performed data preprocessing and exploratory data analysis (EDA) using dplyr and ggplot, and applied diagnostic tools like Bulk ESS, Tail ESS, and trace plots to ensure model convergence and reliability.

## SKILLS

**Programming Languages:** Python, R, Java, SQL

**Frameworks & Tools:** Jupyter, SciKit-Learn, TensorFlow, Tableau,  $\text{\LaTeX}$

**Statistical Methods:** Bayesian inference, Logistic regression, Data visualization