

Zhiyuan Wang

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PROFESSIONAL SUMMARY

Health data scientist with dual master's degrees in Health Data Science and Health Economics. Experienced in analysing large-scale administrative health data using R and SAS, including linked hospital datasets in NSW. Skilled in time-series analysis, stratified regression, and geospatial visualisation. Strong collaborator with a background in interdisciplinary research and data-informed decision-making in both health and environmental domains.

EDUCATION

Master of Science in Health Data Science

October 2023 - June 2025

University of New South Wales, Sydney

- Graduated with High Distinction.
- Machine Learning, Statistical Modelling, Health Data Management, Visualisation, Computing.
- Dissertation Research: Examined how extreme heat affects unplanned hospital admissions and Emergency Department (ED) visits among older adults in NSW, with effect modification by mental health history and socioeconomic disadvantage, using Admitted Patient Data Collection (APDC) and Emergency Department Data Collection (EDDC) data with time-series and conditional logistic regression.
- Interactive project: <https://spicydataboy.com/>

Master of Science in Health Economics

October 2018 - March 2021

University of Duisburg and Essen, Essen, Germany

- Graduated with Distinction.
- Relevant Courses: Health Economics, Microeconomics, Program Evaluation, Labor Economics.
- Publication: Zhiyuan Wang, "The Long-Term Impact from Colonialism on Public Health Behaviour and Healthcare Utilization in Cameroon," Theoretical and Natural Science 3, no. 1 (April 2023): 438–446, <https://doi.org/10.54254/2753-8818/3/20220294>.

WORK EXPERIENCE

Casual Research Officer

May 2025 - Present

Faculty of Medicine & Health, UNSW, Sydney

- Managed large linked hospital datasets from the Centre for Health Record Linkage (CheReL) to support research on end-of-life care quality for people with dementia in NSW.
- Conducted stratified regression analyses and quality indicator monitoring using R and SAS.
- Integrated socioeconomic and geographic indicators (e.g., IRSD, remoteness) to identify care disparities, contributing to evidence for clinical governance and quality improvement.
- Collaborated with clinicians and health researchers to interpret findings and improve data-informed decision-making.
- Drafted analytical summaries for internal reports and contributed to statistical sections for manuscripts and presentations.

Casual Senior Consultant

October 2023 - Present

Smart and Green Transportation Research Centre, Beijing, China

- Coordinated with public agencies and industry partners to deliver strategic insight reports on pollution control and sustainability policies.
- Translated complex environmental data into actionable recommendations, aligning with policy evaluation frameworks and stakeholder goals.

Senior Data Analyst

June 2022 - October 2023

Smart and Green Transportation Research Centre, Beijing, China

- Led end-to-end management of large-scale environmental datasets, with strong emphasis on data governance, cleaning, and reproducibility using SQL and R.
- Supervised ethics and data approval processes; communicated research protocols with government departments.
- Applied machine learning (RNN, LSTM) for predictive modelling and developed real-time dashboards and reports for internal and external stakeholders.
- Presented results in plain language formats to support collaborative decision-making with diverse audiences.

Data Analyst

October 2021 - June 2022

China Global Television Network (CGTN), Beijing, China

- Conducted public sentiment and health-related media impact analysis using NLP techniques in Python and R.
- Created interactive geographic visualisations with QGIS and Power BI to map audience engagement and media influence.
- Reported insights to editorial and policy teams, demonstrating strong communication and presentation skills.

Data Analyst

March 2021 - October 2021

Smart and Green Transportation Research Centre, Beijing, China

- Contributed to evaluation of vehicle emission control programs through SQL- and Stata-based data analysis.
- Collaborated with the National Development and Reform Commission (NDRC), Toyota Research and Development, and the World Bank Urban Development Department.
- Drafted data access and project proposals, demonstrating strong organisational and documentation skills.

Research Assistant Intern

October 2019 - December 2019

RWI - Leibniz Institute for Economic Research, Essen, Germany

- Conducted literature reviews and organized data for a project on historical interventions and their impact on infant health and longevity in Sweden.
- Assisted in quantitative analysis and visualisation with STATA and R.

SKILLS

- Tools & Languages: R, Stata, SAS, Python, MySQL, Power BI, QGIS, ArcGIS, GeoPandas.
- Expertise: Statistical modelling, time-series analysis, data linkage, geospatial statistics, data visualisation.

LANGUAGES

- English (Fluent) | German (Fluent) | Chinese (Fluent).

AWARDS AND COMPETITIONS

- Second Place, Health Data Science Datathon 2024.
Designed a predictive model for epidemic outbreaks using EPIWATCH data and NLP.
- Ranked 28th of 112 teams worldwide, Curiosity Cup Global Health Data Science Hackathon 2025.
Analysed global pandemic surveillance data using SAS to identify early signals of infectious disease trends.

ADDITIONAL ACADEMIC ENRICHMENT

Online Research Seminar on Global Health and Pandemics

Path Academics, led by Yale School of Public Health faculty | August 2022

- Completed intensive seminar covering infectious disease epidemiology and global health responses
- Delivered group presentation on HPV intervention in the U.S.; contributed topic selection and slide design
- Received positive evaluation from Yale Associate Professor Hui Xu for critical thinking, teamwork, and leadership