

Henan Xu

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Education

2021–26 **Ph.D.**, Statistics, University of Waterloo
2019-20 **M.A.**, Statistics, Columbia University in the City of New York
2016-19 **B.Sc.**, Mathematics and Statistics, London School of Economics and Political Science

Research Experience

2026– Postdoctoral Associate, Department of Biostatistics, Yale School of Public Health
(Advisor: [Dr. Bhramar Mukherjee](#))
2025– Collaborating Research Trainee, Homewood Research Institute (Advisor: [Dr. Yeying Zhu](#) and [Dr. Jean Costello](#))
2021– Research Assistant, University of Waterloo (Advisor: [Dr. Yeying Zhu](#))
2020 Research Trainee, UC San Diego (Advisor: [Dr. Wenxin Zhou](#))
2018 Research Trainee, Harvard University (Advisor: [Dr. Tanggang Yuan](#))
2018 Undergraduate Research Assistant, London School of Economics and Political Science (Advisor: [Dr. Xinghao Qiao](#) and [Dr. Umut Cetin](#))

Awards & Honours

2025 HRI Spring Social and Fever Pitch Competition winner
2025 Doctoral Thesis Completion Award, University of Waterloo
2024 Teaching Assistant Award, University of Waterloo
2024 Graduate Student Research Dissemination Award, University of Waterloo
2021–2025 International Doctoral Student Award, University of Waterloo
2019 First Class Honours Degree, London School of Economics and Political Science

Publications

Working papers

- W1. **Xu, H.**, Zhu, Y. & Coffman, D. L. *Gender disparities in rehospitalisations after coronary artery bypass grafting: evidence from a sparse functional causal mediation analysis of the MIMIC-IV data*. arXiv[2410.22502], Minor Revision @ Journal of the Royal Statistical Society, Series C (Applied Statistics). 2025. arxiv.org/abs/2410.22502.
- W2. **Xu, H.**, Zhu, Y. & Coffman, D. L. *Marginal functional mediation analysis with zero-inflated counts*. Manuscript submitted @ Biostatistics. 2025.

Notes & commentary

- N1. **Xu, H.**, Chen, Z., Li, X. & Wang, T. *Addressing confounding in causal effect estimation for NHEFS data*. Notes from the Margin, 17, page 11. 2024.
– Project with supervised students from Spring 2024 [WiM Directed Reading and Research Programs](#) at University of Waterloo.

Presentations

Talks

- T1. **Xu, H.**, Zhu, Y. & Coffman, D. L. *Functional causal mediation analysis with sparse longitudinal data and a zero-inflated count outcome: a study on gender disparities in rehospitalisations after CABG*. 2025 SSC Annual Meeting (Saskatoon, SK, Canada). May 2025.
- T2. **Xu, H.**, Zhu, Y. & Coffman, D. L. *Functional causal mediation analysis with sparse longitudinal data and a zero-inflated count outcome: a study on gender disparities in rehospitalisations after CABG*. International Conference on Statistics and Data Science (Vancouver, BC, Canada). June 2025.
- T3. **Xu, H** & Zhu, Y. *Functional mediation analysis with zero-inflated count data*. 2024 SSC Annual Meeting (St. John's, NL, Canada). June 2024.
- T4. **Xu, H** & Zhu, Y. *Time-varying mediation analysis for zero-inflated count data*. The Sixth ICSA-Canada Chapter Symposium (Niagara Falls, ON, Canada). June 2024.
- T5. **Xu, H.** & Zhu, Y. *Gender disparities in rehospitalisations after coronary artery bypass grafting: evidence from a functional causal mediation analysis of the MIMIC-IV data*. The Fifth Waterloo Student Conference in Statistics, Actuarial Science and Finance (Waterloo, ON, Canada). Oct. 2024.

Posters

- P1. **Xu, H.** & Zhu, Y. *Functional causal mediation analysis with zero-inflated count data: are women doing worse after CABG and why?* Mediation Research Days 2024 (Montreal, QC, Canada). Sept. 2024.

Demonstrations & Tutorials

- D1. **Smith, John**. *Exciting demonstration*. Another Cool Conference Workshop on Technical Things (Cambridge, MA, USA). Apr. 2022.
- D2. **Smith, John**. *CoVaxxy: Linking COVID-19 vaccine adoption and online (mis)information*. Include links this way for the [Cool Organization](#). June 2021.

Selected Media Coverage

- 2015 Qilu Evening News, [Jinan Foreign Language School student awarded Cambridge International A-Level Economics "Top in the World"](#). (News article in Chinese)

Teaching

University of Waterloo

2025 (Winter term)	Instructor, STAT 231: Statistics
2024 (Spring term)	Head Teaching Assistant, STAT 231: Statistics
2021–2025	Teaching Assistant, various undergraduate and graduate courses

Academic Advising

Undergraduate

2023	Gioia De Leonardis, University of Waterloo, WiM DRP
2023	Jia Sheng Hu, University of Waterloo, WiM DRP
2024	Zhige Chen, University of Waterloo, WiM DRP
2024	Xinyang Li, University of Waterloo, WiM DRP
2024	Tiffany Wang, University of Waterloo, WiM DRP

Other Experience

2019	Information Technology Intern, China Merchants Bank, Jinan, China
2017	A-level Economics & IELTS Mentor, LinkedZone Education Group, Jinan, China

Last updated: April 2026