YONGCHAO MA

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Updated September 2024

EDUCATION

University of Michigan, United States — August 2022–Present

Ph.D. in Survey and Data Science

Utrecht University, The Netherlands — September 2019–May 2021

M.Sc. in Methodology and Statistics (With Highest Distinction)
Track: European Master in Official Statistics (EMOS)

Linköping University, Sweden — August 2018–January 2019

Exchange, Computational Social Science

University of Macau, Macau — August 2017–June 2019

M.S.Sc. in Criminology and Criminal Justice

TECHNICAL SKILLS

Statistical Methods	Bayesian Modeling, Causal Inference, Multilevel Modeling, Psychometrics, Structural Equation Modeling, Survival Analysis
Programming Languages	R, Python, JavaScript, HTML, CSS, SQL, Markdown
Statistical Software	SPSS, STATA, HLM, M*plus*, JAGS
Other Software	git, LaTeX

PROFESSIONAL EXPERIENCE

University of Michigan Institute for Social Research — August 2022–Present
Graduate Student Research Assistant — *Ann Arbor, MI, United States*

May 2024–July 2024:
- Work as a teaching assistant for the 2024 Sampling Program for Survey Statisticians organized by the Summer Institute in Survey Research Techniques
- Provide two lectures on logistic regression and multilevel modeling for the course Analysis of Complex Sample Survey Data

Aug 2022–Apr 2024:
- Design a daily web survey on time-varying cannabis use motives to inform adaptive interventions
- Analyze temporal changes in motives and implications for adverse health outcomes by Random Intercept Latent Transition Analysis (RI-LTA) using M*plus*
- Report results to provide practitioners with actionable clinical strategies

Utrecht University — August 2021–July 2022
Research Engineer — *Utrecht, The Netherlands*

- Design user interfaces for ASReview LAB, an AI-based open-source software, using Material Design
- Build user interfaces using ReactJS and develop REST APIs for communication with Python servers
- Write documentation for collaborating with developers and instructing users
- Evaluate and improve the user experience by communicating with users on GitHub
- Release the first stable version and volunteer as a maintainer after leaving the organization

Utrecht University February 2020–July 2021
Graduate Student Research Assistant *Utrecht, The Netherlands*

· Wrangle metadata for systematic review datasets using Python in Jupyter Notebook
· Visualize keywords in titles and abstracts by developing word clouds using Python
· Trained in front-end development using ReactJS and back-end development using Python Flask

Statistics Netherlands September 2020–July 2021
Intern Survey Methodologist *The Hague, The Netherlands*

· Address nonresponse bias within limited budgets by optimizing Bayesian adaptive survey designs
· Program and solve the optimization problem in R to find the optimal survey data collection strategy
· Report effectiveness to researchers and provide operational advice to survey practitioners

JOURNAL ARTICLES

West, B. T., **Ma, Y.**, Lankenau, S., Wong, C. F., Bonar, E. E., Patrick, M. E., Walton, M. A., and McCabe, S. E. (2024). Latent Transition Analysis of Time-Varying Cannabis Use Motives to Inform Adaptive Interventions. *Psychology of Addictive Behaviors.*

van de Schoot, R., de Bruin, J., Schram, R., Zahedi, P., de Boer, J., Weijdema, F., Kramer, B., Huijts, M., Hoogerwerf, M., Ferdinands, G., Harkema, A., Willemsen, J., **Ma, Y.**, Fang, Q., Hindriks, S., Tummers, L., and Oberski, D. L. (2021). An open source machine learning framework for efficient and transparent systematic reviews. *Nature Machine Intelligence, 3*(2), 125–133.

CONFERENCE PRESENTATIONS

Ma, Y., West, B. T., and McCabe, S. E., (2024). Daily web survey data collection to improve health: temporal dynamics of cannabis use motives and context, with implications for adaptive interventions. The 79th Annual Conference of the American Association for Public Opinion Research (AAPOR), May 15th, Atlanta, GA, USA.

Ma, Y., (2024). Leveraging survey variables to estimate response propensity in Bayesian adaptive survey design: a simulation study. The 79th Annual Conference of the American Association for Public Opinion Research (AAPOR), May 16th, Atlanta, GA, USA.

Ma, Y. and Miller, P. V., (2023). Leveraging survey variables to estimate response propensity in Bayesian adaptive survey design: a simulation study. The 48th Annual Conference of the Midwest Association for Public Opinion Research (MAPOR), November 18th, Chicago, IL, USA.

Ma, Y., Mushkudiani, N., and Schouten, B., (2021). An optimal stratification approach for addressing nonresponse bias in Bayesian adaptive survey design. The 7th International Workshop on Advances in Adaptive and Responsive Survey Design, December 1st, Online.

Ma, Y., Mushkudiani, N., and Schouten, B., (2021). Optimal stratification in Bayesian adaptive survey designs. The 9th Conference of the European Survey Research Association (ESRA), July 2nd, Online.

Ma, Y., (2016). The change of the sociopolitical attitudes of the middle class in China: 2003–2013. The Annual Conference of the Chinese Sociological Association, July 17th, Lanzhou, China.

INVITED TALKS

Ma, Y., (2022). Human-centered AI through reliable graphical user interfaces. The 1st ASReview Users Meeting, July 1st, Utrecht, The Netherlands.

SOFTWARE DEVELOPMENT

[asreview](#) (600+ ⭐ on GitHub) ASReview: Active learning for systematic reviews (Maintainer)

[asreview-wordcloud](#) Wordclouds: A tool to create a visual impression of the verbal content within a systematic review dataset

HONORS & AWARDS

Charles Cannell Fund in Survey Methodology, University of Michigan	2024–2025
Student Fellowship, Midwest Association for Public Opinion Research	May 2023
Outgoing Exchange Scholarship, University of Macau	May 2018

CERTIFICATES

[Python for Everybody Specialization](#) by University of Michigan	April 2016
National Computer Rank Examination of China, Level 4 (Network Engineering)	September 2015
National Computer Rank Examination of China, Level 3 (Computer Network)	March 2015
National Computer Rank Examination of China, Level 2 (C Programming)	September 2014

PROFESSIONAL AFFILIATIONS

American Association for Public Opinion Research	2024
Midwest Association for Public Opinion Research	2023
European Survey Research Association	2021
Asian Criminological Society	2018