Xiaoxuan Cai

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ACADEMIC APPOINTMENT / WORK EXPERIENCE

08/2022 - Present	**Assistant Professor of Statistics** Department of Statistics, The Ohio State University, Columbus, OH **Adjunct Assistant Professor of Biostatistics** College of Public Health, The Ohio State University, Columbus, OH **Affiliate Faculty** Translational Data Analytics Institute, The Ohio State University, Columbus, OH
08/2020 – 07/2022	**Postdoctoral Research Fellow** Columbia Mailman School of Public Health, Columbia University, New York, NY Research direction: causal inference, missing data, mediation analysis, and machine learning prediction for mobile health data Advisor: Linda Valeri

EDUCATION

08/2015 – 08/2020	**Yale School of Public Health, New Haven, CT** **Ph.D in Biostatistics** Dissertation: Causal Inference for Intervention Effects under Contagion Advisor: Forrest W. Crawford
08/2013 –05/2015	**Yale School of Public Health, New Haven, CT** **M.S in Biostatistics** Thesis: LASSO variable selection under GEE models Advisor: Peter M. Aronow
09/2009 – 07/2013	**Peking University, Beijing, China** **B.S. in Biology, B.A. in Economics**

HONORS AND AWARDS

2022	Travel Award, Women in Statistics and Data Science conference
2019	Young Investigator Award, ASA Section on Statistics in Epidemiology
2018	Travel Award, Women in Statistics and Data Science conference
2018	Travel Award, Summer Institutes at the University of Washington
2018	MassMutual Student Poster Award, 32nd New England Statistics Symposium
2015	Fellowship from Takeda pharmaceutical Company
2013	Huirong Li Scholarship, Peking University

PROFESSIONAL ORGANIZATIONS AND SOCIETIES

05/2017 – Present   American Statistical Association (ASA), member

09/2018 - Present   Eastern North American Region of the Biometric Society (ENAR), member

02/2020 - Present   International Chinese Statistical Association (ICSA), member

05/2021 - Present   International Society of Clinical Biostatistics (ISCB), member

MANUSCRIPTS IN PREPARATION AND UNDER REVIEW

Xiaoxuan Cai, Eben Kenah, and Forrest W. Crawford (2020) Causal identification of infectious disease intervention effects in a clustered population. *Submitted.*

Xiaoxuan Cai, Xinru Wang, Justin T. Baker, Jukka-Pekka Onnela, Linda Valeri (2021) State space model multiple imputation for missing data in non-stationary multivariate time series. *Submitted to Biostatistics (Manuscript invited to present at NeurIPS 2021 Workshop on Causal Inference Challenges in Sequential Decision Making: Bridging Theory and Practice)*

Xiaoxuan Cai, Jukka-Pekka Onnela, Justin T. Baker, Linda Valeri (2021). Causal inference for multivariate time series data in N-of-1 studies. *(working progress)*

Linda Valeri, **Xiaoxuan Cai**, Aijin Wang, Zixu Wang, Habiballah Rahimi Eichi, Einat Liebenthal, Scott Rauch, Dost Ongur, Russell Schutt, Lisa Dixon, Justin Baker, Jukka-Pekka Onnela (2022). Smartphone-based markers of social networks in schizophrenia and bipolar disorder. *(working progress)*

Charlotte Fowler, **Xiaoxuan Cai**, Justin Baker, Jukka-Pekka Onnela, and Linda Valeri (2022). Testing unit root non-stationarity in the presence of missing data in univariate time series of mobile health studies. *Submitted to Biometrics*

Junzhe Shao, **Xiaoxuan Cai**, Linda Valeri (2022). Generalized synthetic control method with state space model. *Submitted to NeurIPS*

PUBLICATIONS

Xiaoxuan Cai, Wen Wei Loh, and Forrest W. Crawford (2021) Identification of causal intervention effects under contagion. *Journal of Causal Inference 9.1: 9-38*

Regina Melendez, **Xiaoxuan Cai,** Cristine Hine, et al. (2015) Correlates of Cocaine Use in Pregnancy. *Yale Medicine Thesis Digital Library.*

PRESENTATIONS

2022 Invited session, CMStatistics conference, London, UK (upcoming)

2022 Department seminar, School of Biomedical Informatics, The University of Texas, Health Science Center at Houston, Houston, TX (upcoming)

2022 Invited session, 2022 Women in Statistics and Data Science, St. Louis, MI

2022 Invited session, 2022 Joint Statistical Meetings, Washington, DC

2022 Invited session, 2022 ICSA Applied Statistics Symposium, Gainesville, FL

2022 Contributed session, 2022 ENAR, Houston, TX

2022 Department seminar, Department of Statistics, The Ohio State University, Columbus, OH

2022 Department seminar, Center for Biostatistics, The Ohio State University, Columbus, OH

2022 Department research seminar, Department of Psychiatry, NYU Langone Health, New York, NY

2022 Department seminar, Division of Biostatistics, NYU Grossman School of Medicine, New York, NY

2021 Invited session, NeurIPS 2021 Workshop on Causal Inference Challenges in Sequential Decision Making: Bridging Theory and Practice.

2021 E-poster session, 3rd Annual Health Data Science Symposium, Boston, MA

2021 Presentation, 2021 Joint Statistical Meetings, Virtual

2021 Invited session, 42th International Society of Clinical Biostatistics, Lyon, France

2021 Invited session, 2021 ENAR, Virtual

2020 Causal inference learning group, Mailman School of Public Health, Columbia University, Virtual

2020 Biostatistics department seminar, Mailman School of Public Health, Columbia University, Virtual

2020 Invited session, 2020 Women in Statistics and Data Science Conference, Virtual

2020 Invited session, 2020 Joint Statistical Meetings, Philadelphia, PA

2019 Research presentation, School of Public Health, Yale University, New Haven, CT

2019 Contributed session, 2019 Joint Statistical Meetings, Denver, CO

2019 Invited session, 33nd New England Statistics Symposium, Hartford, CT

2019 Invited session, 2019 ENAR, Philadelphia, PA

2018 Invited session, 2018 Women in Statistics and Data Science Conference, Cincinnati, OH

2018 Poster session, 32nd New England Statistics Symposium, Amherst, MA

2018 Speed session, 2018 Joint Statistical Meetings, Vancouver, BC

MENTORSHIP AND DEPARTMENT SERVICE

Co-mentored master student (Junzhe Shao) with Dr. Valeri, Columbia University   09/2021 – Present

Co-mentored master student (Xinru Wang) with Dr. Valeri, Columbia University   03/2021 – 08/2022

Co-organized the Causal Inference Learning Group, Columbia University   08/2020 – 08/2022

TEACHING

Teaching Assistant
Yale University, Department of Biostatistics   **New Haven, CT**
Teaching Assistant (Courses: Applied Survival Analysis, Intro to Stat Thinking,   08/2014 – 05/2018
Applied Regression Analysis, Biostatistics in Clinical Investigation)
Peking University, Department of Biology   **Beijing, China**
Teaching Assistant (Course: Biostatistics)   09/2012 – 01/2013