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Positions and Training

2023–Present †Ph.D. Candidate, Data Science, University of Virginia, School of Data Science

Advisor: Dr. Tom Hartvigsen

Co-advisors: Dr. Alex Gates, Dr. Teague Henry

2023–Present Research Consultant, Nihon Kohden Digital Health Solutions

2021–Present Data Scientist, University of Virginia, School of Medicine

Center for Advanced Medical Analytics

2019–2020 M.S., Data Science, University of Virginia, School of Data Science

2015–2019 B.S., Information and Computing Science, Soochow University

School of Mathematical Sciences

Publications

[1] *Instruction-based Time Series Editing*

Jiaying Qiu, Dongliang Guo, Brynne A. Sullivan, Teague R. Henry, Thomas Hartvigsen.
Proceedings of the 32nd ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2026.

[2] *Fast Leave-One-Cluster-Out Cross-Validation Using Clustered Network Information Criterion*

Jiaying Qiu, Douglas E. Lake, Pavel Chernyavskiy, Teague R. Henry.
Statistical Methods in Medical Research, 2025.

[3] *Ordinal Outcome State-Space Models for Intensive Longitudinal Data*

Teague R. Henry, Lindley R. Slipetz, Ami Falk, **Jiaying Qiu**, Meng Chen.
Psychometrika, 2024.

[4] *Highly Comparative Time Series Analysis of Oxygen Saturation and Heart Rate to Predict Respiratory Outcomes in Extremely Preterm Infants*

Jiaying Qiu, Juliann M. Di Fiore, Narayanan Krishnamurthi, Premananda Indic, John L. Carroll, Nelson Claire, James S. Kemp, Phyllis A. Dennery, Namasivayam Ambalavanan, Debra E. Weese-Mayer, Anna Maria Hibbs, Richard J. Martin, Eduardo Bancalari, Aaron Hamvas, J. Randall Moorman, Douglas E. Lake, et al.
Physiological Measurement, 2024.

- [5] *Pathophysiological Responses to Bloodstream Infection in Critically Ill Transplant Recipients Compared with Non-transplant Recipients*
Jiaying Qiu, Alex N. Zimmet, Taison D. Bell, Shrirang Gadrey, Jackson Brandberg, Samuel Maldonado, Amanda M. Zimmet, Sarah Ratcliffe, Pavel Chernyavskiy, J. Randall Moorman, Gilles Clermont, Teague R. Henry, N. Rich Nguyen, Christopher C. Moore.
Clinical Infectious Diseases, 2024.

Recent Preprints

- [1] *ReasonEdit: Editing Vision-Language Models Using Human Reasoning*
Jiaying Qiu, Kaihua Hou, Roxana Daneshjou, Ahmed Alaa, Thomas Hartvigsen.
arXiv preprint, 2026.
- [2] *BEDTime: A Unified Benchmark for Automatically Describing Time Series*
Medhasweta Sen, Zachary Gottesman, **Jiaying Qiu**, C. Bayan Bruss, Nam Nguyen, Tom Hartvigsen.
arXiv preprint, 2025.
- [3] *Labeling Free-text Data Using Language Model Ensembles*
Jiaying Qiu, Dongliang Guo, Natalie Papini, Noelle Peace, Hannah F. Fitterman-Harris, Cheri A. Levinson, Tom Hartvigsen, Teague R. Henry.
arXiv preprint, 2025.
- [4] *Identifying Nonlinear Relations Among Random Variables: A Network Analytic Approach*
Lindley R. Slipetz, **Jiaying Qiu**, Siqi Sun, Teague R. Henry.
arXiv preprint, 2024.