

# Yeyu Wang Curriculum Vitæ

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## Research Interest

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Learning Analytics, Multimodal Data Analytics, Quantitative Ethnography.

## Education

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- 09/2019 – **University of Wisconsin – Madison, USA**  
present Ph.D. student in Educational Psychology  
Educational Psychology Department  
Advisor: David Williamson Shaffer
- 09/2017 – **Carnegie Mellon University, USA**  
08/2018 Master of Educational Technology and Applied Learning Science (METALS)  
Human-Computer Interaction Institute  
Advisor: Bruce McLaren
- 09/2013 – **Beijing Normal University, China**  
07/2017 Bachelor of Science in Educational Technology  
School of Educational Technology  
Advisor: Jingjing Zhang

## Teaching and Professional Experience

- 09/2024- **Department of Educational Psychology, University of Wisconsin-Madison, USA**  
12/2024 Lecturer for EDPSYCH301: How People Learn, Undergraduate-Level Course at Department of Educational Psychology, UW-Madison.
- 01/2024- **Department of Educational Psychology, University of Wisconsin-Madison, USA**  
05/2024 Lecturer for EDPSYCH301: How People Learn, Undergraduate-Level Course at Department of Educational Psychology, UW-Madison.
- 09/2023- **Department of Educational Psychology, University of Wisconsin-Madison, USA**  
12/2023 Teaching assistant for EDPSYCH560: Foundations of Quantitative and Qualitative Research Method, Master of Learning Analytics, Department of Educational Psychology, UW-Madison.
- 01/2022- **Department of Educational Psychology, University of Wisconsin-Madison, USA**  
05/2022 Teaching assistant for EDPSYCH525: Learning Analytics Theory and Practice, Master of Learning Analytics, Department of Educational Psychology, UW-Madison.
- 09/2021- **Department of Educational Psychology, University of Wisconsin-Madison, USA**  
12/2021 Teaching assistant for EDPSYCH560: Foundations of Quantitative and Qualitative Research Method, Master of Learning Analytics, Department of Educational Psychology, UW-Madison.
- 09/2018 – **Penn Center for Learning Analytics, University of Pennsylvania, USA**  
Research Assistant

08/2019 Advisor: Ryan S. Baker  
Coordinated studies in classroom and facilitated data collection; conducted preprocessing and feature engineering in Physics Playground; built early detectors for wheel-spinning in ASSISTments; and supported the running of MOOC called Big Data and Education in edX.

## Peer-Reviewed Conference Papers

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- [C.14] Ashiq, M. H., Shah, M., Davis, A. J., Wang, Y., Eagan, B., Jimenez, F. A., ... & Shaffer, D. W. (2024). Illustrating the Interplay of Behavioral Patterns and Clinical Competencies in a Virtual Patient Simulation using Epistemic Network Analysis. In *Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024*, pp. 1287-1290. International Society of the Learning Sciences.
- [C.13] Borchers, C., **Wang, Y.**, Karumbaiah, S., Ashiq, M., Shaffer, D., Aleven, V. (2024). Revealing Networks: Understanding Effective Teacher Practices in AI-Supported Classrooms using Transmodal Ordered Network Analysis. Paper accepted *International Conference on Learning Analytics and Knowledge 2024*, Kyoto, Japan.
- [C.12] **Wang, Y.**, Shah, M., Jimenez, F., Wilson, C., Ashiq, M., Eagan, E., Shaffer, D.W. (2023) Developing Nursing Students' Practice Readiness with Patient First: A Transmodal Analysis. In proceeding of *International Conference on Quantitative Ethnography 2023*, Melbourne, Australia.
- [C.11] Ruis, A.R., Tan., Y., Brohinsky, J., Yang, B., **Wang, Y.**, Cai, Z., Shaffer, D.W. (2023) Thick Description of Thin Data: Modeling Socio-Environmental Problem-Solving Trajectories in Localized Land-Use Simulations. Accepted by *International Conference on Quantitative Ethnography 2023*, Melbourne, Australia.
- [C.10] **Wang, Y.**, Ruis, A. R., Shaffer, D., (2023) Modeling Collaborative Discourse with ENA using a Probabilistic Function. In proceedings of *International Conference on Quantitative Ethnography 2022*, Copenhagen, Denmark.
- [C.9] Barany, A., **Wang, Y.**, Shaffer, D. W., & Foster, A., (2021) Who I Am, What I Know, and What I Want: An Epistemic Network Analysis of Student Identity Exploration. In proceedings of *International Conference of Computer Supported Collaborative Learning 2021*, online.
- [C.8] Fogel, A., Swiecki, Z., Marquart, C., Cai, Z., **Wang, Y.**, Brohinsky, J., ... & Shaffer, D. W. (2021, February). Directed Epistemic Network Analysis. In proceedings of *International Conference on Quantitative Ethnography* (pp. 122-136). Springer, Cham.
- [C.7] Bowman, D., Swiecki, Z., Cai, Z., **Wang, Y.**, Eagan, B., Linderroth, J., & Shaffer, D. W. (2021, February). The Mathematical Foundations of Epistemic Network Analysis. In proceedings of *International Conference on Quantitative Ethnography* (pp. 91-105). Springer, Cham.
- [C.6] **Wang, Y.**, Swiecki, Z., Ruis, A. R., & Shaffer, D. W. (2021, February). Simplification of Epistemic Networks Using Parsimonious Removal with Interpretive Alignment. In proceedings of *International Conference on Quantitative Ethnography* (pp. 137-151). Springer, Cham.
- [C.5] **Wang, Y.**, Kai, S., & Baker, R. S. (2020, July). Early Detection of Wheel-Spinning in ASSISTments. In proceedings of *International Conference on Artificial Intelligence in Education* (pp. 574-585). Springer, Cham.

- [C.4] Slater, S., Baker, R.S., **Wang, Y.** (2020) Iterative Feature Engineering Through Text Replays of Model Errors. In Proceedings of The 13th *International Conference on Educational Data Mining* (EDM 2020) (pp. 503-508).
- [C.3] **Wang, Y.**, Nguyen, H., Harpstead, E., Stamper, J., & McLaren, B. M. (2019, June). How Does Order of Gameplay Impact Learning and Enjoyment in a Digital Learning Game?. In proceedings of *International Conference on Artificial Intelligence in Education* (pp. 518-531). Springer, Cham.
- [C.2] Nguyen, H., **Wang, Y.**, Stamper, J., & McLaren, B.M. (2019). Using knowledge component modeling to increase domain understanding in a digital learning game. In proceedings of the 12th *International Conference on Educational Data Mining* (EDM 2019). (pp. 139-148).
- [C.1] Nguyen, H., Harpstead, E., **Wang, Y.**, & McLaren, B. M. (2018, June). Student agency and game-based learning: A study comparing low and high agency. In proceedings of *International Conference on Artificial Intelligence in Education* (pp. 338-351). Springer, Cham.

### Journal Papers

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- [J.2] Li, T., Fan, Y., Tan, Y., **Wang, Y.**, Singh, S., Li, X., ... & Gasevic, D. Analytics of Self-regulated Learning Scaffolding: Effects on Learning Processes. *Frontiers in Psychology*, 14, 1206696.
- [J.1] Fan, Y., Tan, Y., Raković, M., **Wang, Y.**, Cai, Z., Shaffer, D. W., & Gašević, D. (2023). Dissecting learning tactics in MOOC using ordered network analysis. *Journal of Computer Assisted Learning*. 1– 13.

### Workshops and Posters

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- [W&P.8] **Wang, Y.**, Gao, X., Tan, Y., & Eagan, B. (2024). Introduction to Epistemic Network Analysis by University of Wisconsin-Madison Research Bazaar 2024, Madison, WI, USA.
- [W&P.7] **Wang, Y.**, Cheng, Y., & Eagan, B. (2023). Introduction to Epistemic Network. Workshop hosted in *International Conference on Quantitative Ethnography 2023*, Melbourne, Australia.
- [W&P.6] Spikol, D. et al., Swiecki, Z., Ochoa, X., Viberg, O., **Wang, Y.**, ..., Zabolotna, K. (2023). Techniques for Investigating Collaboration with Multimodal Approaches. Workshop hosted in *International Conference on Learning Sciences 2023*, Montreal, Canada.
- [W&P.5] **Wang, Y.**, Ruis A.R., Shaffer, D.W.(2023). Qualitative Parameter Triangulation: A Formulated Approach to Parameterize Multimodal Models. Workshop paper presented in CROSSMMLA, *International Conference on Learning Analytics and Knowledge 2023*, Texas, USA.
- [W&P.4] Carpenter, Z., **Wang, Y.**, DeLiema, D., Kendeou, P., & Shaffer, D.W.(2023). Using Multi-Modal Network Models to Visualize and Understand How Players Learn a Mechanic in a Problem-Solving Game. Poster presented *International Conference on Learning Analytics and Knowledge 2023*, Texas, USA.
- [W&P.3] Shaffer, D.W., Barany, A., & **Wang, Y.** (2021). Advanced ENA Interpretations. Workshop hosted in *International Conference on Quantitative Ethnography 2021*.
- [W&P.2] Swiecki, Z., Kovanović, V., & **Wang, Y.**, (2021). Advanced ENA and rENA. Workshop hosted in *International Conference on Quantitative Ethnography 2020*.
- [W&P.1] **Wang, Y.**, Fogel, A., Tunstall, J., & Brohinsky, J. (2019). Bimodal Epistemic Network Analysis: Parsing the Democratic Debates. Poster presented in *International Conference on Quantitative Ethnography 2019*.

## Awards and Honors

- 10/2023 Best paper nominee for *International Conference on Quantitative Ethnography 2023*.
- 03/2023 Spring 2023 Travel Award by RAFA (Recruitment, Admissions, Fellowships, and Awards) Committee, University of Wisconsin—Madison.
- 03/2023 2022-2023 Early Excellence Award by Campus-Wide TA Award Committee, University of Wisconsin—Madison.
- 10/2022 Best student paper nominee for *International Conference on Quantitative Ethnography 2022*.
- 09/2019 – 08/2023 Selected Scholar by Training Program in Prevention, Intervention, and Enhancement, Department of Educational Psychology, University of Wisconsin-Madison.

## Invited Talks

- 10/2023 Quantitative Ethnography Masterclass invited by Hongkong University, East Central Normal University, Beijing Normal University and Peking University, China.
- 6/2023 Research workshop about Epistemic Network Analysis invited by Professor Fan Yizhou, in School of Educational Technology, Beijing Normal University (Zhuhai Branch), China
- 6/2022 Research workshop about Epistemic Network Analysis invited by Professor Fan Yizhou, in School of Educational Technology, Beijing Normal University (Zhuhai Branch), China
- 12/2021 Research workshop about Epistemic Network Analysis invited by Professor Chen Li, in School of Educational Technology, Beijing Normal University, China
- 12/2019 Research workshop about Epistemic Network Analysis invited by Professor Jingjing Zhang, in School of Educational Technology, Beijing Normal University, China

## Services

- 02/2023 Member of Review Committee for 2023-2024 Early Excellence Award by Campus-Wide TA Award Committee, University of Wisconsin—Madison.

## Skills

Quantitative and programming: R, Python, RapidMiner.  
Qualitative and design: Sketch, user-centered design.

## Mentoring

- 03/2023-Present **Mentoring Research Interns in Epistemic Analytics Lab: Muhammad Ashiq.**
- 03/2021-11/2022 **Mentoring Research Interns in Epistemic Analytics Lab: Ziling Hu (now working for Epic, Madison, WI, USA).**

04/2020

**QE-COVID Data Challenge Team: Mamta Shah, Mohamad Noorman Masrek, Sukie Wang, Meixi**

A Brief Examination of Twitter Feed on #RemoteLearning To Explore the Discourse Around Teaching and Learning During the COVID-19 Pandemic

<https://sites.google.com/wisc.edu/qe-covid-data-challenge/participants?authuser=0>