

RUITING SHEN

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EDUCATION

2026 incoming	Ph.D. in Educational Psychology: Quantitative Methods University of Wisconsin-Madison, Madison, WI, US
2024-2026	MS in Applied Statistics for Social Science Research New York University, New York, NY, US Advisor: Klint Kanopka, Ph.D.
2022-2023	MA in Human Development Research and Policy New York University, New York, NY, US

HONORS AND AWARDS

2026	NYU IT Student Employee Excellence Award
2026	NYU Steinhardt Samuel Eshborn Service Award
2025	International Meeting of the Psychometric Society (IMPS) Student Datathon Third Prize
2024	PRIISM Opportunity Fellowship (\$10,400)
2023	NYU Applied Psychology Department Graduation Spotlight Student
2021	Undergraduate Research Grant, Tianjin University of Sport (CNY 10,000)
2018-2021	Dean's List, Tianjin University of Sport
2018-2021	Merit Scholarship, Tianjin University of Sport (CNY 6,000 in total)

CONFERENCE PRESENTATIONS

1. **Shen, R.**, & Kanopka, K. A Hidden Markov Approach to Understand Behavior Transitions in Test-Taking Processes. In: Annual Meeting of the National Council on Measurement in Education. 2026.
2. **Shen, R.**, & Kanopka, K. Understanding the evolution of individual response process: An exploratory approach. In: International Meeting of the Psychometric Society. 2025.
3. **Shen, R.** & Kanopka, K. Tracking Behavioral Patterns in a Computerized Math Assessment: A Latent Class Approach. (2025). 2025 NYU Society for Statistics Conference, New York, NY. Chapter of the American Statistical Association. Paper presentation.
4. Kanopka, K., van Loon, A., Huang, Y., **Shen, R.**, & Tang, H. Data augmentation for psychometric applications using a mixed-subjects design. In: Pacific Quantitative Psychometrics Conference. 2025.

PUBLICATIONS

Journal Articles

1. **Shen, R.**, Zong, K., Liu, J., & Zhang, L. (2022). Risk factors for depression in tuberculosis patients: a meta-analysis. *Neuropsychiatric Disease and Treatment*, 18, 847.

Conference Proceedings

1. Crowley, D., Cole, W. G., Hospodar, C. M., **Shen, R.**, Adolph, K. E., & Fern, A. (2025). Evaluating Robots Like Human Infants: A Case Study of Learned Bipedal Locomotion. arXiv preprint arXiv:2507.06426.
2. Han, D.*, Aziere, N.*, Wang, T.*, Ossmy, O., Krishna, A., Wang, H.*, **Shen, R.***, Todorovic, S., & Adolph, K. E. (2024). Infants' developing environment: Integration of computer vision and human annotation to quantify where infants go, what they touch, and what they see. ICDL, 2024 IEEE.

Preprints

1. Shen, R., & Kanopka, K. (2026). Understanding the evolution of the individual response process: An exploratory approach. PsyArXiv. https://doi.org/10.31234/osf.io/yczgu_v1

WORK & RESEARCH EXPERIENCE

- 2025-** **Data Management Specialist, NYU Data Services (NYU Libraries and IT)**
Supervisor: Nicholas Wolf, Ph.D.
- Provided data management support to the faculty, staff, and students at NYU
 - Taught Data Carpentry workshops
 - Developed an automatic pipeline to process the missing data of political voting datasets across all U.S. states over the past 5 years, and ran the pipeline on NYU HPC
- 2025-** **Researcher, Computational Policy Lab, Harvard Kennedy School**
Supervisor: Alex Chohlas-Wood, Ph.D.
- Worked on API-based web scraping, automated data collection via Crontab, which executes on NYU's High Performance Computing (HPC) system.
 - Developed a computer vision-based pipeline to crop traffic camera images across New York City and used LLMs to predict vehicle emissions
 - Built an end-to-end data processing workflow, including PDF-to-text conversion, structured output generation using the ellmer R package, and automation with bash scripting
- 2024-** **PRIISM Fellowship Psychometrics Research Assistant, Department of Applied Statistics, Social Science, and Humanities, New York University**
Supervisor: Klint Kanopka, Ph.D.
- Led a project of NAEP process data, developed modeling and clustering methods to identify latent behavior patterns from log data
 - Engineered LLM-based data augmentation workflows, including prompt design, data collection scripts, and Git/GitHub project management
 - Developed and implemented a scalable data analysis pipeline to assess the fit of polytomous item response models across large-scale item response datasets.
- 2023-2024** **Lab Staff, Infant Action Lab, Psychology Department, New York University,**
Principal Investigator: Karen Adolph, Ph.D.
- Assisted with computer vision algorithm fine-tuning for psychology research
 - Developed efficient and reproducible R scripts to analyze a large simulated robot gait data set
 - Trained and supervised undergraduate research assistants in data collection protocols, ensuring accuracy and consistency across studies.
- 2023** **Data Processing Research Assistant, Applied Psychology Department, New York University**
Principal Investigator: Alejandro Ganimian, Ed.D.
- Processed raw data files by reorganizing structures, collapsing variables, creating new metrics, and visualizing results using STATA.
 - Conducted data analysis to assess key research questions and contributed to discussions on findings and implications.

2021-2022 Quantitative Research Intern, Lab of Industrial Psychology, Institute of Psychology, Chinese Academy of Sciences

Principal Investigator: Jingyu Zhang, Ph.D.

- Conducted data processing and analysis to examine how users' real-time status influences acceptance of Huawei system service recommendations, considering the interaction effects of timing, format, and content.
- Collaborated with the software development engineering team to translate behavioral insights into actionable recommendations for system optimization

TEACHING EXPERIENCE

Fall 2025	Lab Instructor/Graduate Adjunct, Practicum in Applied Statistics: Statistical Computing (Graduate Level), New York University Instructor: Klint Kanopka, Ph.D.
Summer 2025	TA, Statistics, Math, and Computing Bootcamp(Graduate Level), New York University Instructor: Eric Novik, MS
Fall 2023, Fall 2024	Lab Instructor/Graduate Adjunct, Intermediate Quantitative Methods: The General Linear Model (Graduate Level), New York University Instructor: Ravi Shroff, Ph.D.
Spring 2025	TA, Basic Statistics(Graduate Level), New York University Instructor: Jaime Kahhat, Ph.D.

SKILLS

Programming and software:

Advanced R (tidyverse, purrr, base R, Ellmer package), Terminal, Git/GitHub, Python (including OpenAI library), SQL (SQLite), API & Webscraping

Statistical and Machine Learning Models:

Regression Models: Linear regression, GLM, MLM

IRT models: 1–3PL, GRM, NRM, PCM, GPCM

Unsupervised ML:

- Clustering: K-means, Latent Class Analysis (LCA), Hierarchical Clustering
- Dimension reduction: PCA, Exploratory Factor Analysis(EFA)

Stochastic process model: Hidden Markov Models(HMMs)