

Zhang Yifan (Jenny)

The University of Hong Kong
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Education

Ph.D. in Psychometrics 2022 - 2026 (expected)

Faculty of Education, The University of Hong Kong

Thesis topic: Latent Variable Modeling with Bayesian Learning

M.Sc. in Data Science 2020 - 2022

Department of Statistics & Department of Computer Science, The University of Hong Kong

Capstone project: Statistical Inference for Tensor Data

B.Sc. in Information and Computation Science 2016 - 2020

Department of Mathematics, Northeastern University, China

Thesis: Analysis of Breast Cancer Prediction Based on Neural Network

Publications

Chen, J., & Zhang, Y. (2024). Research Design and Model Estimation Under the Partially Confirmatory Latent Variable Modeling Framework with Multi-Univariate Bayesian Lassos. *Structural Equation Modeling: A Multidisciplinary Journal*, 32(2), 200–214. [doi]

Zhang, Y., & Chen, J. (2024). Accommodating and Extending Various Models for Special Effects Within the Generalized Partially Confirmatory Factor Analysis Framework. *Applied Psychological Measurement*, 48(4-5), 208-229. [doi]

Presentations

Yifan Zhang & Jinsong Chen (2025, July). Bayesian Graphical Models for Factorial Correlation Estimation. *To be Presented at the 2025 International Meeting of the Psychometric Society (IMPS)*, Minneapolis, MN.

Yifan Zhang & Jinsong Chen (2025, April). A Comprehensive Comparison of Partially Confirmatory Methods in SEM. *Poster Presented at the National Council on Measurement in Education (NCME)*, Denver, CO.

Yifan Zhang & Jinsong Chen (2023, March). Accommodating and Extending Various Models for Special Effects within the Generalized Partially Confirmatory Factor Analysis Framework. *Paper Presented at the National Council on Measurement in Education (NCME)*, Chicago, IL. (Virtual)

Yifan Zhang & Jinsong Chen (2023, March). Improving Recommender System with the Partially Confirmatory Approach and Psychological Factors. *Paper Presented at the National Council on Measurement in Education (NCME)*, Chicago, IL. (Virtual)

Selected Awards

Psychometric Society Travel Award, IMPS 2025

Honorable Mention, COMAP(MCM) 2019

2nd Prize/3rd Prize, China Undergraduate Mathematical Contest in Modeling 2018/2017

1st Prize/3rd Prize, NEU Mathematical Modeling Contest for College Students 2018/2017

Academic Scholarship, Northeastern University 2017/2018/2019

Research Project

Statistical Inference for Tensor Data

2021

Master Capstone Project

Hong Kong, China

- Researched spatiotemporal sequence prediction using models such as SRVP, ConvLSTM, ConvT-TLSTM, Deep RNN and PredRNN
- Conducted performance comparisons on the KTH dataset, focusing on metrics like PSNR, SSIM, and LPIPS, as well as efficiency and accuracy.

Breast Cancer Prediction Based on Neural Network

2020

Undergraduate Thesis

Shenyang, China

- Conducted analysis on over 27,000 genetic data, performing dimensionality reduction using signal-to-noise ratio calculations.
- Developed a predictive classification neural network (SDAE-LM-LVQ), achieving a classification accuracy of 75%, outperforming traditional models.

Artificial intelligence training camp - machine learning

2019

Summer Camp

Shenyang, China

- Image Classification using deep learning.
- Used Python to construct convolutional neural network

Athletic Games Information Administration System

2018

Summer Camp

Shenyang, China

- Used My Eclipse to design the website and realized basic functions of the interface.
- Applied SQL to design database and matched the relevant functions of the website.

Working Experience

The University of Hong Kong

January - June, 2024

RPG Student Coordinator

Hong Kong, China

- Serve as student representatives to the Organizing Committee of the Research Postgraduate Conference
- Organize and support academic and social activities for MPhil/PhD/EdD students

The University of Hong Kong

June - August, 2022

Research Assistant I

Hong Kong, China

- Enhance research methodology and psychometrics with learning-based latent variable modeling
- Methodological developments to advance educational and psychological measurement with Bayesian learning

The University of Hong Kong

June - August, 2021

Research Assistant II

Hong Kong, China

- Prepare comprehensive course materials, converting code and text into high-quality documents using Rmarkdown.
- Explored and implemented R tools for visualizing SEM models, enhancing interpretability and presentation of complex model structures.

Biden Consulting Company

March - November, 2019

Campus Representative

Shenyang, China

- Took the duties of brand and product promotion within campus.

- Administrated operate alumni association.
- Campus excellent professional manager, ranked 4/100.

Manulife Financial Centre

Asset Management Intern

February, 2019

Hong Kong, China

- Analyzed Asian market trends for asset planning, tracked financial service industry dynamics, collected data, and wrote business proposals for decision-making.
- Conducted portfolio analysis through real-time simulation for corporate asset management.
- Best Team Award of The 2019 Manulife GP programme.

Teaching Experience

Teaching Assistant

The University of Hong Kong

EDUR7103, Structural Equation Modeling I *Spring, 2024*

EDUR6021, Quantitative Research Methods II *Spring, 2024/Spring, 2025*

EDUR7102, Statistical and Psychometric Analysis with R *Fall, 2023*

EDUR7109, Factor Analysis *Fall, 2023*

MEDD8904, Introduction to Factor Analysis and Structural Equation Modeling *Spring, 2023*

MEDD8815, Introduction to Statistical Methods *Fall, 2022*

MLIM6025, Methods of Research and Enquiry *Spring, 2022*

Academic Services

Organizing Committee

- 2024 Research Postgraduate Conference (RPC) at HKU

Session Chair

- 2025 National Council on Measurement in Education (NCME) Annual Meeting
- 2024 Research Postgraduate Conference (RPC) at HKU

Reviewer

- 2025 National Council on Measurement in Education (NCME) Annual Meeting

Technical Skills

Programming Languages/Tools Python, R, C++, Matlab, Mplus, SPSS, HTML, L^AT_EX

Language Proficiencies

Mandarin Native
English Fluent