JIAWEI HUANG

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Carl H. Lindner College of Business, University of Cincinnati

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EDUCATION

Carl H. Lindner College of Business, University of Cincinnati (Cincinnati, USA) 2021 – 2026 (Expected)

Doctor of Philosophy (Ph.D.) in Business Analytics

Dissertation: Essays in Modern Survey Analysis and Machine Learning Applications in Business Analytics

Committee: Dungang Liu (Cochair), Yan Yu (Cochair), Michael J. Fry, Hui Guo

Department of Statistics, University of Wisconsin-Madison (Madison, USA) 2019 – 2021

Master of Science (M.Sc.) in Data Science and Statistics

Department of Statistics, Renmin University of China (Beijing, China) 2016 – 2020

Bachelor of Science (B.Sc.) in Statistics

RESEARCH

My research centers on the development and application of statistical methodology for complex business data. I create tools for **discrete data analysis** and the integration of **large language models** to analyze mixed-type and unstructured survey data. In parallel, I advance statistical learning methods—including **penalized regression**, **neural networks**, and **deep learning**—for high-dimensional, multi-modal data, with applications in asset pricing, econometrics, and organizational research.

Major Working Papers

1. An "*i*-mobility" Framework for Studying Social Mobility: Individualized Inference via Generative Analysis of Discrete Data (With Dungang Liu, Yuan Jiang, and Yu Xie). Preprint for submission to *Journal of the American Statistical Association*.

2. Simplicity versus Complexity: The Role of Historical Average in Kelly, Malamud, and Zhou's (2024) RFF Model. (with Hui Guo and Yan Yu). Submitted to *Journal of Finance*.

Peer-Reviewed Publications

3. **Huang, J.**, Sheng, J., & Wang, D. (2021). Manifold Learning Analysis Reveals Strategies for Aligning Single-Cell Multi-modal Data of Neuronal Electrophysiology and Transcriptomics. *Communications Biology*, 4(1), 1308.

4. Nguyen, N. D., **Huang, J.**, & Wang, D. (2022). A Deep Manifold-Regularized Learning Model for Enhancing Phenotype Prediction from Multi-modal Data. *Nature Computational Science*, 2(1), 38-46.

5. Jin, T., Rehani, P., Ying, M., **Huang, J.**, Liu, S., Roussos, P., & Wang, D. (2021). scGRNom: A Computational Pipeline for Integrative Multi-Omics Analysis to Predict Cell-Type-Specific Disease Genes and Regulatory Networks. *Genome Medicine*, 13(1), 95.

Other Working Papers

6. **Huang, J.**, Zheng, H., Dust, S., & Fry, M. J., I Will Pay You Back in The Future: Examining Employees' On-Job Perceptions of Organizations and Their Intention of Making Post-Turnover Employment Referrals. Preprint for submission to *International Journal of Human Resource Management*.
7. Leveraging LLMs and Generative AI for Supervised Survey Text Extraction: Evidence from Engagement Surveys and Exit Interviews (With Michael J. Fry and Kanix Wang). Writing results. Targeting *INFORMS Journal on Applied Analytics*.
8. Statistical Improvements in Counterfactual Analysis for fsQCA (With Yanran Liu and Peng Wang). Writing results. Targeting *Information System Research*.

Industry Collaborations through Center of Business Analytics

- Ryerson Inc. — Developed inventory forecasting models adopted for multi-location operations.
- HSD Metrics — Linked engagement and exit survey data to analyze turnover intentions.
- Drees Home — Built housing price prediction dashboards in Power BI.
- ABC Fitness — Designed analytics pipeline for payment fraud detection.

TEACHING AND STUDENT MENTORING

Teaching Interests

I am passionate about integrating statistical methods, programming, and machine learning/AI tools into business education. I am well-prepared to teach courses like **Business Analytics, Data Wrangling, Applied Linear Regression, Probability Models, Optimization, Machine Learning and AI, Data Mining, Database Management**, while remaining enthusiastic about contributing to courses in other area like Marketing, Information System, and Operations Research where my expertise can add value.

Independent Instructor (In-person and Online)

- BANA 7031 Probability Models (Graduate. Incoming) — Fall 2025
- BANA 6043 Statistical Computing (Graduate. Eval: 7.3/8.0) — Summer 2025
- BANA 4137 Descriptive Analytics and Data Visualization (Undergraduate. Eval: 7.5/8.0) — Spring 2024
- BANA 4137 Descriptive Analytics and Data Visualization (Undergraduate. Eval: 7.0/8.0) — Summer 2022

Teaching Assistant

- BANA 7047 Data Mining (Sections 001, 002, 003) — Spring 2023
- BANA 7051 Applied Statistical Methods (Sections 001, 002) — Fall 2022
- BANA 7052 Applied Linear Regression (Sections 001, 002) — Fall 2022
- BANA 7050 Forecasting Methods (Section 002) — Spring 2022
- BANA 4137 Descriptive Analytics and Data Visualization (Section 001) — Spring 2022

- BANA 7038 Probability Models (Section 001) Fall 2021

Student Mentoring

*I served as an advisor at the Center for Business Analytics on two projects with **Drees Homes** and **ABC Fitness**, guiding two students in BA undergraduate and two in CS master's.*

Second Reader for Capstone Essays

I served as the second reader for multiple capstone projects in the Master of Science in Business Analytics program.

PRESENTATIONS

An "i-Mobility" Framework for Studying Social Mobility

- Invited Session, Joint Statistical Meeting (JSM), Nashville, TN 08/2025
- Paper Competition with Award, KY-ASA Meeting, Lexington, KY 04/2025
- Contributed Session, Joint Statistical Meeting (JSM), Toronto, Canada 08/2023
- Contributed Poster, ISCA Applied Statistics Symposium, Ann Arbor, MI 06/2023
- Refereed Session with Award, Symposium on Data Science and Statistics (SDSS), St. Louis, MO 05/2023
- Contributed Session, Annual POMS Conference, Orlando, FL 04/2023

Simplicity versus Complexity: The Role of Historical Average in RFF Model

- Refereed Session with Award, Symposium on Data Science and Statistics (SDSS), Salt Lake City, UT 05/2025

Gender Moderating Effects in Registered Nurses' (RNs) Turnover

- Invited Session, Annual POMS Conference, Minneapolis, MN 04/2024

Predicting Power Grid Failures using Self-Organized Criticality

- Invited Discussant, International Risk Conference (MRS), Boston, MA 07/2025

Manifold Learning Applications in Single-Cell Multi-Modal Data

- Contributed Poster, Symposium on Data Science and Statistics (SDSS), Pittsburgh, PA 06/2022

AWARDS AND FELLOWSHIPS

- Research Fellowship, Center of Business Analytics Research Fellowship ($7800) 2022 – 2023
- Conference Award, Best Student Paper Award, KY-ASA meeting 2025
- Conference Award, Student and Early-Career Awards, SDSS 2025
- Conference Award, Student and Early-Career Travel Awards, SDSS 2023
- University Level Award, Graduate Student Government (GSG) Research Fellowship ($1700) 2023
- University Level Award, Graduate Student Government (GSG) Student Travel Award ($4000) 2021 – 2025
- University Level Award, Siddall Fund ($2000) 2021 – 2025

SERVICE

Academic Service

- Ad hoc Journal Reviewer
  - *Journal of American Statistical Association* 2025
  - *Statistical Papers* 2023
- Conference Session Chair
  - Joint Statistical Meeting (Time Series Signals and Prediction) 2025
  - Symposium on Data Science & Statistics (Modeling Innovations) 2025
  - Symposium on Data Science & Statistics (Predictive Modeling in Nature) 2024

Service to the University of Cincinnati

- Graduate Student Governance (GSG) Excellence Awards Committee 2025
- President – American Statistical Association (ASA) UC Chapter 2025 – present
- President – Institute for Operations Research and the Management Sciences (INFORMS) UC Chapter 2024 – present
- Treasurer – Lindner Graduate Student Association (LGSA) 2024 – present

Professional Membership

- American Statistical Association (ASA)
- International Chinese Statistical Association (ICSA)
- The Institute for Operations Research and the Management Sciences (INFORMS)
- Production & Operations Management Society (POMS)

SKILLS

Languages: Mandarin (native), English (professional)
Tools: Python, R, SAS, MATLAB, C/C++, LaTeX, Shell

REFERENCES

Dr. Dungang Liu
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