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 creates 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 (**penalized regression**, **neural networks**, and **deep learning**) for high-dimensional, multimodal data, with applications in asset pricing, genetics, and organizational research.*

* *denote equal contributions; authors are ordered alphabetically by family name.*

Preprint or Submitted Papers

1. **Jiawei Huang**, Dungang Liu, Yuan Jiang, & Yu Xie. An "*i*-mobility" Framework for Studying Social Mobility: Individualized Inference via Generative Analysis of Discrete Data. Preprint for submission to *Journal of the American Statistical Association*. **Job Market Paper**.

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

3. **Jiawei Huang***, Huimiao Zheng*, Scott Dust, & Michael J. Fry. 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*.

Peer-Reviewed Publications

4. **Jiawei Huang**, Jie Sheng, & Daifeng Wang. Manifold Learning Analysis Suggests Strategies to Align Single-Cell Multimodal Data of Neuronal Electrophysiology and Transcriptomics. *Communications Biology* 4.1 (2021): 1308. [Link]

5. Nam D. Nguyen, **Jiawei Huang**, & Daifeng Wang. A Deep Manifold-Regularized Learning Model for Improving Phenotype Prediction from Multimodal Data. *Nature Computational Science* 2.1 (2022): 38–46. [Link]

6. Ting Jin, Peter Rehani, Mufang Ying, **Jiawei Huang**, Shuang Liu, Panagiotis Roussos, & Daifeng Wang. scGRNom: A Computational Pipeline for Integrative Multi-Omics Analysis to Predict Cell-Type-Specific Disease Genes and Regulatory Networks. *Genome Medicine* 13.1 (2021): 95. [Link]

Other Working Papers

7. Leveraging LLMs and Generative AI for Supervised Survey Text Extraction: Evidence from Engagement Surveys and Exit Interviews (With Michael J. Fry & Kanix Wang). Finalizing statistical analysis results. Targeting *INFORMS Journal on Applied Analytics*.

8. Statistical Improvements in Counterfactual Analysis for fsQCA (With Yanran Liu, Peng Wang, & Zewei Lin). Theory formalization and data collection completed; running statistical analysis. Targeting *MIS Quarterly*.

Industry Collaborations through Center of Business Analytics

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

TEACHING AND STUDENT MENTORING

- 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 areas like Marketing, Information Systems, and Operations Management where my expertise can add value.*

Independent Instructor (In-person and Online)

Graduate Courses

- BANA 7031 Probability Models (Incoming) — Fall 2025
- BANA 6043 Statistical Computing (Evaluation: 7.3/8.0) — Summer 2025

Undergraduate Courses

- BANA 4137 Descriptive Analytics and Data Visualization (Evaluation: 7.5/8.0) — Spring 2024
- BANA 4137 Descriptive Analytics and Data Visualization (Evaluation: 7.0/8.0) — Summer 2022

Teaching Assistant

Graduate Courses

- 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 7038 Probability Models (Section 001) Fall 2021

Undergraduate Courses

- BANA 4137 Descriptive Analytics and Data Visualization (Section 001) Spring 2022

Student Mentoring

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

Master's Capstone Essays

I served as the second reader for multiple capstone projects in the Business Analytics master's 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

- 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
- Graduate Student Government (GSG) Research Fellowship ($1700) 2023
- Graduate Student Government (GSG) Student Travel Award ($4000) 2021 – 2025
- Siddall Fund ($2000) 2021 – 2025

SERVICE

Academic Service

- Ad Hoc Journal Reviewer
  - *Journal of the American Statistical Association*
  - *Statistical Papers*
- 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)
Programming: Python, R, SAS, MATLAB, C/C++
Tools: LaTeX, Shell, Markdown

REFERENCES

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Dr. Michael J. Fry
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