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, OH, 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, WI, 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 develops novel statistical, machine learning and AI methodologies for complex business data. I utilize ***nonparametric statistical methods*** *and* ***large language models (LLMs)*** *to analyze survey data in socioeconomics and healthcare operations, and advance* ***machine learning and deep learning methods*** *for high-dimensional, multimodal data in applications such as financial asset pricing and gene–environment interaction.*

Dissertation Papers

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

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. Under review at ***Journal of Finance***. [Link]

Peer-Reviewed Publications

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

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

5. 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*** (2021). [Link]

Other Working Papers

6. **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*.
7. Leveraging Generative AI Models for Textual Analysis in Healthcare Human Resources Operations (With Michael J. Fry & Kanix Wang). Finished analysis, writing. Targeting *Manufacturing & Service Operations Management*.
8. Finite-Sample Variable Prescreen Methods for Qualitative Comparative Analysis (With Yanran Liu, Peng Wang, & Zewei Lin). Finished analysis, writing. 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 Algorithms, Data Mining, Database Management****, while remaining enthusiastic about courses in other areas 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

- 2025 INFORMS Annual Meeting, Atlanta, GA 10/2025
  – Data Mining and Decision Analytics (DMDA) Workshop (Refereed Full Paper)
  – Job Market Showcase Session
- 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
- Waismon Center Research Fellowship ($4000) 2021

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

Dr. Dungang Liu
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Dr. Michael J. Fry
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