

MING-JU CHUANG'S RESUME

Institute of Statistics and Data Science, National Tsing Hua University, Taiwan

PhD applicant for University of Michigan's Statistics program

Email: zhuang890212@gmail.com

EDUCATION

Ph.D. candidate in Statistics and Data Science

National Tsing Hua University (NTHU)

Sept. 2022 - Present

Hsinchu, Taiwan

B.S. in Psychology & B.B.A. in Statistics (Double major)

National Cheng Kung University (NCKU)

Sept. 2018 - June 2022

Tainan, Taiwan

RESEARCH INTERESTS

Missing Data Analysis, Causal Inference, Meta Analysis

RESEARCH EXPERIENCE

Graduate Research

Institute of Statistics and Data Science, NTHU

■ **Ensemble-Based Multiply Robust Methods for Missing Not at Random Data with Model Misspecification** (*Spring 2023 - Present*)

- Advisor: Yu-Jen Cheng
- Paper Manuscript: In preparation
- Proposed a novel ensemble method for missing not at random data, combining multiple propensity score models with generalized methods of moments to create multiply robust inverse probability weighting estimators, and demonstrated its effectiveness under mild misspecification scenarios through simulation studies and real-world application to mental health data.

Undergraduate Research

Department of Psychology, NCKU

■ **Exploring the Impact of Virtual Reality Training on College Baseball Players' Pitching Performance and Resilience under Different Situational Pressures** (*Spring 2021 - Spring 2022*)

- Advisor: Kwang-Yu Cheng (Institute of Physical Education, Health & Leisure Studies, NCKU)
- Investigated the effect of varying situational pressure levels on the pitching performance of college baseball players using a self-designed virtual reality training system, and explored the potential advantages of virtual reality technology in enhancing players' resilience to pressure-filled situations.

■ **Analyzing Factors affecting Chinese Professional Baseball League (CPBL) Audience Willingness to Enter the Stadium** (*2020*)

- Advisor: Po-Hsien Huang
- Investigated the impact of factors such as team matchups and weather conditions on audience willingness to attend games in the CPBL, using box office performance as a proxy, with data sourced from the official CPBL website and the Central Weather Bureau in Taiwan.

- **Investigating the Impact of Reward on Attentional Focus Using Systems Factorial Technology (SFT) (2019)**
- Advisor: Cheng-Ta Yang
- Collected data from an experimental psychology paradigm with a multi-factor design to investigate how rewards influence attentional focus by modeling the underlying information processing mechanisms through SFT.

HONORS AND AWARDS

Graduate Awards

Institute of Statistics and Data Science, NTHU

- **Scholarship for Cultivating Outstanding Doctoral Students** *Fall 2023 - Spring 2027*
- **Academic Excellence Scholarship** *Spring 2023*
- **Excellent Entrance Scholarship** *Fall 2022*

Undergraduate Awards

Department of Psychology, NCKU

- **College Student Research Scholarship** *Fall 2021 - Spring 2022*
- **Academic Excellence Award** *2019*
- **Economics Competition Excellence Award (Top 1%)** *Spring 2019*

TEACHING EXPERIENCE

Graduate Teaching Assistant

Institute of Statistics and Data Science, NTHU

- **STAT 505 - Statistical Learning** *Fall 2023, Fall 2024*
- **STAT 661 - Survival Analysis** *Spring 2023*
- **STAT 202 - Statistics (lectured in Chinese & English)** *Fall 2022*

SKILLS/TOOLS

Languages	English (fluent), Mandarin (native), Japanese (advanced)
Programming Languages	R, Python, Java, Matlab
Machine Learning Tools	Pytorch, Tensorflow, Sklearn, Scikit-learn
Hobbies	Baseball, Painting, Learning foreign languages

EXTRACURRICULAR

Leader of Soft Ball & baseball Team, NTHU STAT	<i>2024</i>
Member of Badminton Team, NTHU STAT	<i>2023</i>
Member of Intercultural student Volunteer Organization, NCKU	<i>2019-2020</i>
Member of the Academic Department of the Psychology Student Association, NCKU PSY	<i>2018-2019</i>