

YU-SHIN LIOU

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ACADEMIC BACKGROUND

University of California, Berkeley

GPA: 3.87/4.0, Aug 2023 - May 2024

Visiting student.

National Taiwan University

GPA: 3.84/4.3, Sep 2020 - June 2024

Bachelor of Sociology.

RESEARCH EXPERIENCE

Summer 2024 - Present [Network in Context Lab](#), U.S. Integrated contextual information and classical network theory to improve the performance of the LLM agent in predicting the network ties. Collaborators: Prof. Byungkyu Lee (New York University) and David Broska (Stanford University).

Summer 2024 [Human-Centric AI Lab, Northeastern University](#), U.S. Use LangChain framework to build LLM agents interaction experiments and applied the ERG model to identify key factors influencing the formation of agents' social networks.

March 2021 - Aug 2023 [Academia Sinica, Joint employment by the Institute of Information, Sociology, and Statistics](#), Taiwan Research Assistant in the Big Data Research Group. Applied survival analysis on dynamic network graphs built from user digital footprints on Facebook.

Feb 2023 - July 2023 [Academia Sinica, Research Center for Humanities and Social Sciences](#), Taiwan Developed an efficient web crawler for food delivery platforms, optimizing the system with parallel computing and API scraping, reducing data retrieval time by 98.3%.

PROJECT EXPERIENCE

Jan 2022 - June 2022 [Crowd Social Enterprise \(OurCityLove\)](#), Taiwan Conducted user research to develop tactile design standards of fire evacuation maps for visually impaired users.

Jan 2021 - Nov 2021 [Environmental Information Center](#), Taiwan Contributing Journalist: Performed interviews and conducted Web-based text mining for [human-wildlife conflict series report](#).

Sep 2015 - Oct 2016 [Invent Accessible Safety Slide](#), Taiwan Design a process for producing flexible microscope slides, reducing costs by 91% and production time by 96% while ensuring safety for children with special needs.

- Second inventor on patent; Awarded Silver Medal at [Taipei International Invention Show](#), 2016.

TEACHING ASSISTANT EXPERIENCE

2022 Fall [Global MBA Program, Business Administration, NTU](#), Taiwan Teaching Assistant for the Global MBA course "Statistics and Data Analysis," taught in English to experienced professionals from diverse countries, providing support in statistical methodologies.

2023 Spring [Statistics Education Center, NTU](#), Taiwan First undergraduate student to be admitted as a TA by the Statistics Education Center. Hosting English lab sessions and guiding students in statistical concepts.

AWARDS

2022 National Taiwan University Principal Award Academic Achievement Award for **Top 2%** of Students (Full-year tuition scholarship)

2022 Yulin Talent Cultivation Scholarship Awarded 20,000 USD for commitment to visually impaired welfare.

2023 Future Scholars in Humanities and Social Sciences Awarded 32,000 USD for visiting UC Berkeley.

2022 College Student Research Scholarship, National Science Committee Awarded 1,333 USD for social media network dynamic research.

PUBLICATION

Hsuan-Wei Lee*, Yu-Shin Liou*, Ming-Yi Chang, and Yang-Chih Fu. **Clustering, Popularity, and the Complex Dynamics of Triadic Closure: A Longitudinal Analysis of Social Media Networks.** *Submitted to Sociological Science.* (* Second author equal contribution)

RELATED SKILLS

Programming: Python, C/C++, React, JavaScript, HTML, CSS

Machine Learning Frameworks: PyTorch, LangChain, TensorFlow, Pandas, NLTK, Seaborn, Numpy, Keras

Statistics: R, Stata, SPSS, HLM, Excel

Design: Adobe Illustrator