JULIA HSIN-PING HSU

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Interdisciplinary researcher in information and computer science applying computational social science methods to study community informatics, civic technology and AI for social good.

Education

George Mason University — VA, USA
Ph.D. in Information Technology — 2020–Present

George Mason University — VA, USA
M.S. in Computer Science — 2018–2020

University of Taipei — Taipei, Taiwan
B.S. in Computer Science — 2013–2017

Research & Mentoring Experience

George Mason University — VA, USA
Graduate Research Assistant — Nov. 2019–Present

- Computational social sciences
- Community informatics
- Information inequality
- ML/ AI for social good
- Civic technology

George Mason University — VA, USA
Aspring Scientist Summer Internship Program (ASSIP) Mentor — Summer 2023 & 2024

- Mentored ASSIP fellows by providing research guidance, technical support, and feedback on project development.

Virginia Academy of Science, Engineering, and Medicine — VA, USA
COVES Fellow at the State Council of Higher Education for Virginia — May 2024–Aug. 2024

- Ethics-based analysis of AI use in higher education

Dept. of Computer Science, University of Taipei — Taipei, Taiwan
Teaching Assistant — Spring 2017

- Provided feedback and instructions to 50 students on Java and Python programming assignments

Publications

[1] Hsu, J. H.-P., Mahabir, R., Gonzales, V., Gkountouna, O., Hilal, A., & Lee, M. (2026). Predicting the success of local gatherings: A comparison of organizer- and participant-side success in meetup. *Cities*, *169*, 106530. https://doi.org/10.1016/j.cities.2025.106530

[2] Hsu, J. H.-P., & Lee, M. (2025). From open-ended text to taxonomy: An llm-based framework for information sources for disability services. *Proceedings of the Association for Information Science and Technology*, *62*(1), 915–919. https://doi.org/10.1002/pra2.1313

[3] Kim, J., Hsu, J. H.-P., Sohn, G., Lee, G. M., & Lee, M. (2025). Leveling socioeconomic disparities: The role of service availability in school dropout rates. *Special Issue on Emerging Computational Approaches for Social Work Research and Practice.*
[4] Lee, M., & Hsu, J. H.-P. (2024). An Evaluation of GPT-4V for Transcribing the Urban Renewal Hand-Written Collection. *Digital Humanities (DH '24)*. https://doi.org/10.48550/arXiv.2409.09090
[5] Hsu, J. H.-P., Shin, H., Park, N., & Lee, M. (2023). Two-sided Cultural Niches: Topic Overlap, Geospatial Correlation, and Local Group Activities on Event-based Social Networks. *Proceedings of the 11th International Conference on Communities and Technologies*, 54–63. https://doi.org/10.1145/3593743.3593758
[6] Hsu, J. H.-P., Wang, J., & Lee, M. (2022). Towards an Expectation-Oriented Model of Public Service Quality: A Preliminary Study of NYC 311. *International Conference on Social Informatics*, 447–458. https://doi.org/10.1007/978-3-031-19097-1_31

Awards and Honors

- 3rd-Place Prize in the Poster Session at the Converge AI Event Organized by the CEC's AI-in-Gov Council 2025
- GMU University Travel Grant from Office of the Provost 2025
- Conference Bursary Award (w/ Travel Fund) from Digital Humanities (DH) 2024
- 3rd-Place Prize at the GMU College of Engineering and Computing Innovation Week Poster Competition 2024
- GRA Award from GMU's Center for Advancing Human-Machine Partnership (CAHMP) 2023
- GMU University International Travel Grant from Associate Provost for Graduate Education 2022
- Winner of Wells Fargo Campus Analytics Challenge – NLP and Topic Modeling 2020
- Outstanding Achievement Award by Taipei City Council for 4 academic years 2013–2017
- Winner of the University of Taipei Social Network Design Competition 2017
- University of Taipei High Scholar Achievement Award for 4 Consecutive Years 2013–2017
- Winner of the University of Taipei Software Creative Design Competition 2013

Selected Presentations

- **Julia Hsu** (2025). An AI-Based Framework for Understanding Occupational Injuries across Virginia. Poster presented at the Virginia Academy of Science, Engineering and Medicine (VASEM) Summit on Artificial Intelligence, Sep. 30.
- **Julia Hsu** and other colleagues (2024). Collaborating to Success: Analyzing the Collaboration Networks of Gaming YouTubers. Poster presented at the International Conference on Computational Social Science (IC2S2), July 17-20. Philadelphia, PA.

Participation in Funded Projects

SAFETI: Strategic Analysis for Fine-granular Injury and Fatality PrEvenTion Insight
Funded by the Virginia Department of Labor and Industry (DOLI) 2025–Present

- Mentored graduate and undergraduate researchers on data analysis and modeling
- Designed and implemented deep learning models for injury and fatality prediction

Mapping Information Ecology: Understanding the Fragmentation of Disability Service Information
Funded by Virginia Board for People with Disabilities & U.S. Department of Health and Human Services 2023–2024

- Co-authored the grant proposal
- Developed an LLM-assisted framework to analyze large-scale survey data on disability information sources

– Implemented computational network analysis to map information fragmentation

Exploring How Convergence Methods Foster Shared Accountability to Reveal, Map, and Mitigate the Sources and Dynamics of Bias across Social Service Provisioning Systems
Funded by NSF DASS Program 2023–Present

– Contributed as a graduate research assistant to data analysis

AI for AI: Toward Community-level Human-AI Collaborations in Local Meetups
Funded by 4VA @Mason 2021–2022

– Conducted data analysis and implemented machine learning models to examine local group gathering dynamics

A Visualization Tool and Assessment Framework for Civic Technology Use in the DMV Area: The Case of 311 Systems During the COVID-19 Outbreak
Funded by NSF CIVIC Innovation Challenge Stage 1 2021–2021

– Collected data and integrated 311 datasets across the DMV region

– Analyzed resident reporting behaviors during COVID-19 pandemic

Making Information Deserts Visible: Computational Models, Disparities in Civic Technology Use, and Urban Decision Making
Funded by NSF HCC Program 2020–2022

– Conducted data analysis on residents reporting behaviors

– Led the web visualization system development team

Professional Service

- **Student Volunteer**, RecSys 2022 2022
- **Reviewer**, SocInfo 2022 2022

Technical Skills

- **Programming Languages/ Databases:** Python, C, C++, Java, SQL, MongoDB, Spark, MATLAB, HTML, CSS, JavaScript, VHDL, Assembly Language
- **Frameworks/ Other:** Django, Angular, Jenkins, Amazon Web Services, RESTful Web Service (Jersey), React, Rancher, Docker, Android Studio, Google Cloud, Git