JULIA HSIN-PING HSU

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Computational Social Sciences; Community Informatics; Urban Computing; Civic Technology; AI for Social Good; Machine Learning; Social Media Data Analytics; Health Informatics

EDUCATION

George Mason University — VA, USA
Ph.D. in Information Technology — 2020–2026
Dissertation Committee: Dr. Myeong Lee (chair), Dr. Hemant Purohit, Dr. Vivian Genaro Motti, Dr. Jonathan Auerbach

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

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

AWARDS AND HONORS

- Travel Fund from iConference — 2026
- Dissertation Completion Grant from GMU's Office of the Provost — 2026
- 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 (with 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

PEER-REVIEWED PUBLICATIONS C=CONFERENCE, J=JOURNAL

[J1] Kim, J., Hsu, J. H.-P., Sohn, G., Lee, G. M. & Lee, M. Leveling Socioeconomic Disparities: The Role of Service Availability in School Dropout Rates. *Research on Social Work Practice,* 10497315251377009. doi:10.1177/10497315251377009 (2025). *SJR: Q1 in Sociology and Political Science/ Social Sciences.*

[J2] Hsu, J. H.-P., Mahabir, R., Gonzales, V., Gkountouna, O., Hilal, A. & Lee, M. Predicting the success of local gatherings: A comparison of organizer- and participant-side success in Meetup. *Cities* **169,** 106530. ISSN: 0264-2751. doi:10.1016/j.cities.2025.106530 (2026). *IF: 6.0; SJR: Q1 in Urban Studies/ Development/ Sociology and Political Science.*

[C1] Hsu, J. H.-P., Wang, J. & Lee, M. *Towards an Expectation-Oriented Model of Public Service Quality: A Preliminary Study of NYC 311* in *International Conference on Social Informatics* (2022), 447–458. doi:10.1007/978-3-031-19097-1_31.

[C2] Hsu, J. H.-P., Shin, H., Park, N. & Lee, M. *Two-sided Cultural Niches: Topic Overlap, Geospatial Correlation, and Local Group Activities on Event-based Social Networks* in *Proceedings of the 11th International Conference on Communities and Technologies* (2023), 54–63. doi:10.1145/3593743.3593758.

[C3] Lee, M. & Hsu, J. H.-P.. *An Evaluation of GPT-4V for Transcribing the Urban Renewal Hand-Written Collection* in *Digital Humanities (DH '24)* (2024). doi:10.48550/arXiv.2409.09090. *Bursary Award*.

[C4] Hsu, J. H.-P. & Lee, M. *From Open-Ended Text to Taxonomy: An LLM-Based Framework for Information Sources for Disability Services* in *Proceedings of the Association for Information Science and Technology* **62** (2025), 915–919. doi:10.1002/pra2.1313.

[C5] Prazak, I., Padovani, L., Lim, Y., Hsu, J. H.-P. & Lee, M. *Disability Misinformation on Facebook: A Comparison of LLM-based Fact-Checking Tools* in *iConference 2026 Proceedings* (2026).

NON-PEER-REVIEWED PUBLICATIONS AND REPORTS R=REPORT

[R1] Lee, M., Abubakr, L., Shrivastava, T., Hsu, J. H.-P., Whitman, S. A. & Kim, P. *2024 Assessment of Virginia's Information Ecology of the Disability Services System* (2024). eprint: https://vbpd.virginia.gov/wp-content/uploads/2024/08/2024-Assessement-of-Information-Ecology.pdf.

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** (2025). An AI-Based Framework for Understanding Occupational Injuries across Virginia. Poster presented at the CEC's AI-in-Gov Council. Sep. 18.
- **Julia Hsu** (2025). Mapping the Information Ecology for People with Disabilities: A Taxonomy of Information Sources using Large Language Model. Lightening talk at George Mason University Information Sciences and Technology PhD Symposium. April 2025.
- **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.
- **Julia Hsu** and other colleagues (2024). How Do Gaming YouTubers' Collaboration Shape Their Success? Implications for Embeddedness in Streamers' Collaboration Networks. Poster presented at the GMU College of Engineering and Computing Innovation Week, Feb. 2024.

SOFTWARE

- **Boston 311 Information Deserts** (2022): A map-based visualization platform that demonstrates how the disparities in 311 reports manifest across the City of Boston. A result from the NSF CHS grant #1816763 (2018-2022). https://infodeserts.org/

TEACHING & MENTORING EXPERIENCE

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

- Mentored ASSIP fellows by providing research guidance, technical support, and feedback on project development
- Supported ASSIP fellows in developing, writing, and submitting academic papers

Dept. of Computer Science, University of Taipei Taipei, Taiwan

Teaching Assistant Spring 2017

- Prepared teaching materials for Java and Python classes
- Provided feedback and instructions to 50 students on Java and Python programming assignments

PARTICIPATION IN FUNDED PROJECTS

SAFETI: Strategic Analysis for Fine-granular Injury and Fatality PrEvenTion Insight 2025–Present

Funded by the Virginia Department of Labor and Industry (DOLI)

PI: Dr. Myeong Lee & Dr. Kevin Laybarge (GMU)

- 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 2023–2024

Funded by Virginia Board for People with Disabilities & U.S. Department of Health and Human Services

PI: Dr. Myeong Lee (GMU) & Co-PI: Dr. Kathleen Pine (ASU)

- 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 2023–2025

Funded by NSF DASS Program Award #2217706

PI: Dr. Margaret Hinrichs (ASU) & Co-PIs: Dr. Erik Johnston, Dr. Kathleen Pine, Dr. Myeong Lee

- Contributed as a graduate research assistant to data analysis

AI for AI: Toward Community-level Human-AI Collaborations in Local Meetups 2021–2022

Funded by 4VA @Mason

PI: Dr. Myeong Lee & Co-PIs: Dr. Ron Mahabir, Dr. Olga Gkountouna, Dr. Amr Hilal

- 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 2021–2021

Funded by NSF CIVIC Innovation Challenge Stage 1 Award #2043900

PI: Dr. Myeong Lee (GMU) & Co-PI: Dr. Susan Winter (UMD)

- 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 2020–2022

Funded by NSF HCC Program Award #1816763

PI: Dr. Susan Winter (UMD) & Project Lead: Dr. Myeong Lee (GMU)

- Conducted data analysis on residents reporting behaviors
- Led the web visualization system development team

Workshops, Research Programs & Institutes

- Doctoral Colloquium (2025). Association for Information Science and Technology.
- Workshop participant: Mapping Research and Practices on AI in the Public Sector (2025). Association for Information Science and Technology.
- Alumni, Consortium for the Science of Sociotechnical Systems (CSST), 2025.
- Workshop attendee: NSF Designing Accountable Software Systems (DASS) Workshop, 2024

Professional Experience

George Mason University   VA, USA
Graduate Research Assistant   Nov. 2019–Present
- Developed computational algorithms for large-scale data processing, modeling, and pattern discovery
- Conducted interdisciplinary research and collaborated with government and community stakeholders
- Performed comprehensive literature reviews and contributed to research design and analytical frameworks
- Contributed to grant proposal writing, including background research, methodological descriptions and preliminary analyses
- Built interactive web-based visualization systems to visualize research findings

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

MYGUARD Company Limited   Taoyuan, Taiwan
Software Engineer   Jun. 2017 –Jul. 2018
- Developed and improved iOS and Android Apps for international medical foundation and increased 16% of downloads in one year
- Used Python to analyze and generate usage report of Apps to help the medical foundation spread medical knowledge

Scholarly and Professional Services

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

Technical Skills

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

Languages

- Mandarin, English