

CURRICULUM VITAE

Hung-Chi Liu
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EDUCATION

- 2020- present **Ph.D. Student** School of Geographical Sciences & Urban Planning, Arizona State University, USA
(Advisor: Daoqin Tong; Committee members: Michael Kuby, Deborah Salon)
- 2015- 2017 **M.S.** Dept. Geography, National Taiwan University, Taiwan
Thesis: “The Effects of Built Environments on Spatial-temporal Patterns of Public Bicycle Uses” (Advisor: Jen-jia Lin; Committee members: Tzai-hung Wen, Wann-ming Wey)
- 2011- 2015 **B.S.** Dept. Geography, National Taiwan University, Taiwan

EXPERIENCE

- Sep 2020- present **Part-time Research Assistant** (PI: Daoqin Tong)
School of Geographical Sciences & Urban Planning, Arizona State University
- Apr 2020- Aug 2020 **Research Assistant** (PI: Jen-jia Lin)
Dept. Geography, National Taiwan University, Taiwan
- Identifying the associations of built environments and the spatiotemporal patterns of electrical sharing moped scooter use
- Jan 2019- Apr 2020 **Research Assistant** Ecology and Remote Sensing Lab (PI: Cho-ying Huang)
Dept. Geography, National Taiwan University, Taiwan
- Mapping and modeling the regional biomass of bryophyte in the tropical montane cloud forests
 - Applying machine learning approaches to identify fine-root images automatically
- Aug 2018- Dec 2018 **Research Assistant** Center for Institution and Behavior Studies (PI: Kong-pin Chen) / Center for GIS (PI: Chiao-ling Kuo)
Research Center for Humanities and Social Sciences, Academia Sinica
- Analyzing the spatial and temporal distribution patterns of the convenience stores in Taiwan
- Sep 2015- Jul 2017 **Part-time Research Assistant** (PI: Jen-jia Lin)
Dept. Geography, National Taiwan University, Taiwan
- Assisting with the project, Built Environment and Public Bike Usage: A Comparison of Neighborhoods in Beijing, Taipei, and Tokyo, sponsored by Ministry of Science and Technology, Taiwan

REFEREED JOURNAL ARTICLES

- **Liu, H. C.**, Tong, D., & Kuby, M. (2024). The Flow Termini Coverage Model for Locating Bike-Sharing Stations. *Annals of the American Association of Geographers*, 1-13.
- Huang, C.Y., **Liu, H. C.**, & Chung, C. H. (2024). Contribution of Environmental Factors to Post-typhoon litterfall stability in subtropical montane cloud forests of the Asia-Pacific region. *Forest Ecology and Management*, 558, 121757.
- Mu, W., Tong, D., Grubestic, T. H., **Liu, H. C.**, Helderop, E., Miller, J. A., & Bienenstock, E. J. (2023). Geoforensics with pollen quantification: a spatial perspective. *Annals of the American Association of Geography*, 1-17.
- **Liu, H. C.**, & Lin, J. J. (2022). Associations of built environments with spatiotemporal patterns of shared scooter use: A comparison with shared bike use. *Transport Policy*, 126, 107-119.

- Huang, C. Y., **Liu, H. C.**, Hu, K. T., & Chung, C. H. (2022). Variation of seasonal litterfall in subtropical montane cloud forests to typhoon severity and environmental factors. *Biotropica*.
- Lai, G. Y., **Liu, H. C.**, Chung, C. H., Wang, C. K., & Huang, C. Y. (2021). Lidar-derived environmental drivers of epiphytic bryophyte biomass in tropical montane cloud forests. *Remote Sensing of Environment*, 253, 112166.
- Lai, G. Y., **Liu, H. C.**, Kuo, A. J., & Huang, C. Y. (2020). Epiphytic bryophyte biomass estimation on tree trunks and upscaling in tropical montane cloud forests. *PeerJ*, 8, e9351.
- **Liu, H. C.**, & Lin, J. J. (2019). Associations of built environments with spatiotemporal patterns of public bicycle use. *Journal of Transport Geography*, 74, 299-312.
- Lin, J. J., Guo, Q. Q., & **Liu, H. C.** (under reviewing). Associations of built environments with demands of scooter-sharing services: A vehicle-based approach.

CONFERENCE PRESENTATIONS

- **Liu, H. C.**, & Tong, D. (2024, April). “Optimizing the Location of Electric Moped-Scooter Sharing Hubs: A GPS Trajectory Approach”. *American Association of Geographers Annual Meeting*. Honolulu, HI, USA.
- **Liu, H. C.**, Tong, D., & Kuby, M. (2024, January). “The Flow Termini Coverage Model for Locating Bike-Sharing Stations”. *Transportation Research Board Annual Meeting*. Washington, DC, USA.
- **Liu, H. C.**, & Tong, D. (2023, March). “Exploring the Multiscale Spatial Relationship between Built Environments and Moped Scooter Sharing Usage”. *American Association of Geographers Annual Meeting*. Denver, CO, USA.
- **Liu, H. C.**, & Lin, J. J. (2022, February). “Associations of Built Environments with Spatiotemporal Patterns of Shared Moped uses: A Comparison with Shared Bike Use”. *American Association of Geographers Annual Meeting*. New York, NY, USA.
- Ding, J. J., Chen, J. C., Lu, X. C., Tsai, S. F., Li, H. J., **Liu, H. C.**, Liou, Y. J., & Huang, C. Y. (2020, September). “SVM-Based Root Identification Algorithm Using Ridge Features and Eroded Masks”. *2020 IEEE International Conference on Consumer Electronics*. Taipei, Taiwan.
- **Liu, H. C.**, & Lin, J. J. (2017, April). “The Effects of Built Environments on Spatial-temporal Patterns of Public Bicycle Uses”. *American Association of Geographers Annual Meeting*. Boston, MA, USA.

INVITED TALK

- Hung-Chi Liu, 2021. “Geographic Information System and Spatial Science Approach,” Arizona State University, School of Human Evolution and Social Change, Applied Mathematics for the Life and Social Sciences, March 13, 2021.

SKILLS

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| • Computer programming skills | Python |
| • Geographic data analysis skills | ArcGIS, QGIS, Google Earth Engine, ENVI |
| • Statistical analysis skills | R, CPLEX, LINGO |

GRANTS AND AWARDS

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|------|---|
| 2022 | Government Scholarship to Study Abroad, Ministry of Education, Taiwan (\$32000) |
| 2017 | The 3 rd place, Robert Raskin Student Competition, AAG Cyberinfrastructure Specialty Group |
| 2017 | Dean’s Award, College of Science, National Taiwan University |
| 2017 | International Conference Funding, Ministry of Science and Technology, Taiwan (\$2000) |

TEACHING EXPERIENCE

2023-2024 TA, Geographic Info Science III, Arizona State University
2023-2024 TA, GIS Methods for Non-Majors, Arizona State University
2022-2023 TA, Geographic Info Science I, Arizona State University
2022-2023 TA, GIS Methods for Non-Majors, Arizona State University
2016-2017 TA, Local and Regional Development, National Taiwan University
2016-2017 TA, Decision Making for Urban and Regional Development, National Taiwan University
2015-2016 TA, Transport Geography, National Taiwan University