

Yung-Ming Tsai

Department of Geography

The University of Tennessee

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EDUCATION

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| 2021–present | Ph.D., Geography, University of Tennessee, Knoxville, Tennessee. |
| 2017–2020 | M.A., Geography, National Taiwan Normal University, Taipei, Taiwan.

Thesis topic: An unsupervised machine learning approach for multidimensional network data mining. |
| 2013–2017 | B.A., Geography, National Taiwan Normal University, Taipei, Taiwan. |

PROFESSIONAL APPOINTMENTS

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| 2022–present | Graduate research assistantships, Department of Geography, University of Tennessee, Knoxville, Tennessee |
| 2021–2022 | Graduate teaching assistantships, Department of Geography, University of Tennessee, Knoxville, Tennessee |
| 2018–2019 | GIS lab assistant, Department of Geography, National Taiwan Normal University, Taipei, Taiwan |
| 2017–2020 | Geospatial Information Science Program assistant, Department of Geography, National Taiwan Normal University, Taipei, Taiwan |
| 2017–2020 | Graduate research assistantships, Department of Geography, National Taiwan Normal University, Taipei, Taiwan |
| 2015–2016 | Technician, FORMOSAT-2 Image Analyst Distribution Center, National Taiwan Normal University, Taipei, Taiwan |

GRANTS & AWARDS

2021	1 st Place, 2021 Land surveying and mapping data GIS application competition, 3D innovative application category, Ministry of the Interior, Taiwan
2020	Graduate fellowships, University of Tennessee, Knoxville, Tennessee (2020 - present)
2019	Thesis fellowships, Department of Geography, National Taiwan Normal University, Taipei, Taiwan
2019	Graduate travel grants for international academic conference, Ministry of Science and Technology, Taipei, Taiwan
2018	Thesis fellowships, Department of Geography, National Taiwan Normal University, Taipei, Taiwan
2018	Outstanding graduate student award, Department of Geography, National Taiwan Normal University, Taipei, Taiwan
2017	Thesis fellowships, Department of Geography, National Taiwan Normal University, Taipei, Taiwan
2017	Undergraduate thesis excellency award, Department of Geography, National Taiwan Normal University, Taipei, Taiwan

PUBLICATIONS

2020	Shih, H. C., Stow, D. A., Tsai, Y. M., & Roberts, D. A. Estimating the starting time and identifying the type of urbanization based on dense time series of landsat-derived Vegetation-Impervious-Soil (VIS) maps—A case study of North Taiwan from 1990 to 2015. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 85, 101987.
2019	Chang, K. C., & Tsai, Y. M. GIS data mining and transportation analysis application. <i>Public Governance Quarterly</i> , 7(2), 42-47. (in Chinese)
2019	Chen, C. H., Tsai, Y. M., & Chang, K. C. The Data Accuracy Calibration of Fine Particulate Matter: A Case Study of Airboxes in Taipei. <i>Journal of Geographical Research</i> , (70), 109-141. (in Chinese)
2019	Tsai, Y. M., Chang, K. C., Chen, C. K., & Chou, H. C. An Application of Deep Learning Image Classification on Landslide Automated Detection with

FORMOSAT-2 Satellite Imagery. *Journal of Geographical Research*, (71), 67-78.

PRESENTATIONS

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| 2022 | Tsai, Y. M., Shaw, S. L. A use case of implementing a space-place GIScience Framework. Presentation at the Annual Meeting of American Associate of Geographers, New York, New York (virtual session) |
| 2019 | Tsai, Y. M., Chang, K. C. Landslides detection from satellite imagery using a deep learning technique. Presentation at the Asian Conference of Remote Sensing, Daejeon, South Korea. |
| 2019 | Tsai, Y. M., Chang, K. C., An unsupervised machine learning approach for multidimensional network data mining. Presentation at the Annual Meeting of American Associate of Geographers, DC, Washington |
| 2018 | Tsai, Y. M., Chang, K. C., K-medoid Based Space-Time Network Cluster Analysis. Presentation at the Annual Meeting of American Associate of Geographers, New Orleans, Louisiana |
| 2017 | Tsai, Y. M. Spatio-Temporal Hotspot Analysis of Traffic Flow on Highway. Presentation at the Annual Meeting of American Associate of Geographers, Boston, Massachusetts |

Courses Taught

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| 2021 | GEOG 311 Lab - Geovisualization and Geographic Information Science, University of Tennessee, Knoxville |
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GUEST LECTURES

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| 2020 | Guest lecture for “Land suitability analysis”, National Taiwan Normal University, Taipei, Taiwan |
| 2020 | Guest lecture for “USLE GIS modeling”, Department of Geography, National Taiwan Normal University, Taipei, Taiwan |
| 2020 | Guest lecture for “Aerial photogrammetry”, Department of Geography, National Taiwan Normal University, Taipei, Taiwan |

- 2020 Guest lecture for “Supervised classification for remote sensing”, Department of Geography, National Taiwan Normal University, Taipei, Taiwan
- 2020 Guest lecture for “File IO programming”, Department of Geography, National Taiwan Normal University, Taipei, Taiwan