Ching-Chi Chou

Lausanne, Switzerland | ching-chi.chou@epfl.ch | +41 76 221 89 17 | https://trip1ech.github.io

Education

EPFL (Swiss Federal Institute of Technology, Lausanne) Sept 2024 – June 2026

- M.S. in Digital Humanities
- Coursework: Modern NLP, Network Machine Learning, Image Analysis and Pattern Recognition, Machine Learning for DH, Image Processing for Earth Observation, Transportation Network Modeling and Analysis

National Taiwan University (NTU) Sept 2019 - June 2023

- B.S. in Geography (Geoinformation Concentration)
- Specialization Program in Geographic Data Science (GPA 4.18/4.3 in the program)
- Coursework: Machine Learning with Python, Web APP development, Operating Systems, Spatial Database Systems, Network Data Analysis and Models, UAS Mapping and Image Interpretation, Geospatial Simulation, Remote Sensing

Experience

Digital Product Manager Intern, H2U Corporation July 2022 – Dec 2023

- Utilized 1M+ anonymized users' hiking GPS trajectories to detect high-risk trail segments by analyzing lost patterns, enabling the development of data-driven hiking risk map in Taiwan
- Led the product transoformation of HikingNotes, a hiking app with 100K+ monthly users, into subscription-based service by conceptualizing new features including user footprint analysis and a walking-time-based hiking network information
- Launched a 6 month gamified hiking initiative on a newly designed digital platform with 100K+ participants, represented H2U in a Sport Data Hackathon, and won a TWD$500K prize

Research Intern, GIS Center, RCHSS, Academia Sinica July 2021 – June 2023

- Conducted research on mobility network from telecom data and spatio-temporal epidemic statistics to evaluate the effectiveness of policy interventions and predict hotspots in 2021 COVID-19 outbreak [1][2][3]
- Completed a funded research fellowship project: Proposed an optimal spatial distribution of testing station during COVID-19 outbreak by SEPIAQR epidemic simulations and mobility network, reducing projected confirmed cases by 20% [5]

Undergraduate Research Assistant, Lab for Cartography & Multi-media, NTU July 2020 – June 2021

- Compiled and analyzed research findings from a 2018 survey on place name recognition, evaluating the effectiveness of public infrastructure naming as a preservation strategy and assessing public awareness of place name meanings [4]
- Assisted in the revamping of the Place Names Information Service website in Taiwan

Selected Projects

Place Experience and Similarity through Google Maps Review Networks Feb 2025 - Present

- Constructed co-occurrence networks from large-scale Google Maps review data to study users' mobility footprint and place visitation patterns, investigating whether users with similar footprints share similar review sentiment

Reconstructing Mobility in 1740 Venice: Agent-Based Modeling of a Multimodal Canal-City Network Sep 2024 - Dec 2024

- Pioneered micro-scale historical mobility modeling by extracting individual home–work locations from 1740 Venetian rental record archive catastici, enabling person-level ABM of a pre-industrial city.
- Received 5.75/6 in Foundations of Digital Humanities course at EPFL

Publications

Effectiveness of controlling COVID-19 epidemic by implementing soft lockdown policy and extensive community screening in Taiwan. [1] 2022

Scientific reports 10.1038/s41598-022-16011-x [site]

Chan, T. C., **Chou, C. C.**, Chu, Y. C., Tang, J. H., Chen, L. C., Lin, H. H., ... & Chen, R. C.

Comparing the performance between static and dynamic populations in COVID-19 hotspots prediction [2] 2022

Taiwan Journal of Public Health 10.6288/TJPH.202212_41(6).111074 [site]

Chou, C. C., Lin, H. H., Chen, K. J., Chen, R. C., Chan, T. C

Predicting the hotspots of COVID-19 outbreak by Telecom data - Take Taipei City and New Taipei City as an example. [3] 2022

Taiwan Geographic Information Conference 2022, 89-96 (Best Paper Award) [site]

Chou, C. C., Lin, H. H., Chen, K. J., Chen, R. C., Chan, T. C.

Living or Leaving? The Alteration and Perception of Place Names of Kavalan in Yilan, Taiwan [4] 2018

Bulletin of The Geographical Society of China 10.29972/BGSC.201809_(61).0005 [site]

Shih, T. L., **Chou, C. C.**, Chen, Y. C.

Honors

College Student Research Grant, National Science and Technology Council July 2022 – Feb 2023

- Research: **Exploring the spatial allocation of testing stations using supply-demand relations: A Case Study of New Taipei City.** [5]
- Amount of Grant: TWD $48,000

Honorable Mention, "Move to Earn" Sport Data Hackathon Feb 2023

- Represented H2U Corporation, awarded by Ministry of Digital Affairs
- Prevailed over 40+ companies to win TWD $500,000

Best Paper Award, Taiwan Geographic Information Conference July 2022

Selected Award, Keelung City Hackathon for Geo-Science Strategy Jan 2022

Silver Medal, National Geography Olympiad Sep 2018

Skills

Languages

- Taiwanese Mandarin: Native / English: IELTS 7.5 (CEFR C1) / French (A2) / Japanese (A2)

Data Science

- Programming: Python(PyTorch, scikit-learn, OpenCV, pandas), R, SQL, Mapbox GL JS, Leaflet.js
- Platforms/Tools: AWS, MySQL, PostgreSQL, Git/GitHub, Tableau, Google Analytics, Looker Studio, Google Earth Engine
- Software: QGIS, ArcGIS Pro, NetLogo, Metashape, Stella Architect
- Others: LaTex, Figma,

Athletics

- Running coach (1.5 years experience at EMBA Running Club, National Chengchi University)
- Personal Bests: 5000m – 16:52 / 10,000m – 35:29 / Half Marathon – 1:16:02 (top 0.36% according to runrepeat.com)