

# Yijun Lin

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## Education

2021 -	Ph.D., Computer Science, University of Minnesota, Twin Cities, USA
2018 - 2021	Ph.D., Computer Science, University of Southern California, USA (Transferred to UMN after Aug. 2021)
2015 - 2017	M.S., Data Science, University of Southern California, USA
2011 - 2015	B.S., Information Securities, Tongji University, Shanghai, China

## Honors & Awards

2022-2024	<b>UMN DSI-ADC Fellowship</b>
2023	<b>Third Place, Best Poster Award &amp; Student Travel Award</b> , SIAM International Conference on Data Mining (SDM)
2022	<b>First Place, Map Feature Extraction Challenge, AI for Critical Mineral Assessment Competition</b> . Duan, W., Li, Z., Lin, F., <b>Lin, Y.</b> , Shrotriya, T., Knoblock, C. A., Chiang, Y.-Y.
2020	<b>Student Travel Award</b> , IEEE International Conference on Data Mining
2019	<b>Student Travel Award &amp; Excellent Service Award</b> , IEEE CIC, CogMI, IEEE TPS <b>Student Travel Award</b> , ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems
2018	<b>Student Travel Award</b> , ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems

## Publications

Modeling Spatially Varying Physical Dynamics for Spatiotemporal Predictive Learning. **Lin, Y.** and Chiang, Y.-Y. *ACM SIGSPATIAL, 2023 (accepted)*

The mapKurator System: A Complete Pipeline for Extracting and Linking Text from Historical Maps (Demo Paper). Kim, J., Li, Z., **Lin, Y.**, Namgung, M, Jang, L., and Chiang, Y.-Y. *ACM SIGSPATIAL, 2023 (accepted)*

A Semi-Supervised Learning Approach for Abnormal Event Prediction on Large Network Operation Time-Series Data. **Lin, Y.** and Chiang, Y.-Y. *IEEE International Conference on Big Data, 2022*

Building Autocorrelation-Aware Representations for Fine-Scale Spatiotemporal Prediction. **Lin, Y.**, Chiang, Y.-Y., Franklin, M., Eckel, S. P. and Ambite, J. L. *IEEE International Conference on Data Mining, 2020.*

A review of air quality modeling. Karroum, K., **Lin, Y.**, Chiang, Y. Y., Ben Maissa, Y., El Haziti, M., Sokolov, A. and Delbarre, H. *MAPAN, 35(2), 287-300, 2020*

Building Explainable Data Analytics for Location-Dependent Time-Series Data (Vision Paper). Chiang, Y.-Y., **Lin, Y.**, Franklin, M., Eckel, S. P., Ambite, J. L. and Ku, W.-S. *IEEE First International Conference on Cognitive Machine Intelligence, 2019.*

Exploiting spatiotemporal patterns for accurate air quality forecasting using deep learning. **Lin, Y.**, Mago, N., Gao, Y., Li, Y., Chiang, Y.-Y., Shahabi, C. and Ambite, J. L. *Proceedings of the 26th ACM SIGSPATIAL international conference on advances in geographic information systems, 2018.*

Los Angeles Metro Bus Data Analysis Using GPS Trajectory and Schedule Data (Demo Paper). Nguyen, K., Yang, J., **Lin, Y.**, Lin, J., Chiang, Y.-Y. and Shahabi, C. *Proceedings of the 26th ACM SIGSPATIAL international conference on advances in geographic information systems. 2018.*

Mining Public Datasets for Modeling Intra-City PM2.5 Concentrations at a Fine Spatial Resolution. **Lin, Y.**, Chiang, Y.-Y., Pan, F., Stripelis, D., Ambite, J. L., Eckel, S. P. and Habre, R. *Proceedings of the 25th ACM SIGSPATIAL international conference on advances in geographic information systems, 2017.*

## **Working Experience**

Research Intern, Mentor: **John Krumm**, Microsoft Corporation, May. 2020 - Aug. 2020

Research Programmer, Spatial Sciences Institute (SSI), USC, Nov. 2017 - Aug. 2018

## **Presentations<sup>1</sup>**

SynMap: A Synthetic Dataset for Text Spotting in Scanned Historical Maps. **Lin, Y.**, Kim, J., Li, Z., Chiang, Y.-Y. *GeoAI and Deep Learning Symposium: GeoAI for Feature Detection and Recognition, AAG, 2023*

The mapKurator System: Extracting and Linking Text from Large Numbers of Historical Map Scans. Jang, L., Kim, J., Namgung, M., Shrotriya, T., **Lin, Y.**, Li, Z., Chiang, Y.-Y. *Machines Reading Maps Summit, Stanford, 2023*

Guest Speaker, Mining Public Online Data for Fine-Scale Air Quality Prediction, *USC SSCI680 Advanced Spatial Computing, 2019 Fall*

Guest Speaker, Recommendation System and Spatial Data Visualization, Soongsil University Visit, 2019 Summer

## **Professional Services**

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<sup>1</sup> The presentations with peer-reviewed publications are in the section of Publications.

### Teaching Assistant

2023 Spring      UMN Introduction to Data Mining (graduate level)  
2022 Fall        UMN Practice of Database Systems (undergraduate level)  
2022 Spring      UMN Spatial AI (graduate level)  
2019 - 2021      USC Foundations and Applications of Data Mining (graduate level)

### Conference Peer-Review

ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems,  
2019 - 2022

IEEE International Conference on Tools with Artificial Intelligence, 2017 - 2022

International Workshop on Methods, Models, and Resources for Geospatial Knowledge  
Graphs and GeoAI, 2021

International Workshop on Health Intelligence, 2021

International Conference on Artificial Intelligence in Medicine, 2020

### Journal Review

GeoInformatica

Atmospheric Pollution Research

Environmental Technology & Innovation (#reviews: 1)