TEXAS STATE VITA

I. ACADEMIC/PROFESSIONAL BACKGROUND

A. Name: Yihong Yuan Title: Associate Professor

B. Educational Background

Degree	*Year*	*University*	*Major*	*Thesis/Dissertation*
Ph.D.	2013	University of California, Santa Barbara	Geography (Geographic Information Science)	Characterizing Human Mobility from Mobile Phone Usage
M.A.	2013	University of California, Santa Barbara	Statistics	N/A
B.S.	2009	Peking University	Geographic Information System	On General Place Name Management Considering Geographical Semantics

C. University Experience

Position	*University*	*Dates*
Associate Professor	Texas State University	Aug 2020 – Present
Assistant Professor	Texas State University	Aug 2014 – Aug 2020
Visiting Researcher	ETH Zurich	Apr 2012 – Dec 2013
Teaching/Research Assistant	University of California Santa Barbara	Jan 2010 – Mar 2012

D. Relevant Professional Experience

Position	*Company*	*Dates*
Data Scientist	Tapjoy, Inc.	Jan 2014 – Aug 2014
Research Intern	ESRI, Inc.	Jun 2011 – Sep 2011

E. Other Professional Credentials (licensure, certification, etc.)

Certificate, Teaching Online, Texas State University, 2020.
Certificate, GFDA Early Career Workshop, Association of American Geographers, 2014-2015.

II. TEACHING

A. Teaching Honors and Awards

2021, College of Liberal Arts Achievement Award for Excellence in Teaching, Texas State University
2020, Teaching Award of Honor, Texas State University
2019, Richard Wayne Simmons Geography Advocate Award, Department of Geography, Texas State University
2016, Service Learning (SL) Fellow Spotlight, SL Excellence Program, Texas State University

B. Courses Taught

Courses Taught at Texas State University

Undergraduate level courses

GEO 3411 - Maps and Mapmaking
GEO 4427 - GIS Consulting Practicum
GEO 4422 - Web Mapping (stacked course for both undergraduate and graduate students)
GEO 4390 - Independent Study

Graduate level courses

GEO 5419 - Geographic Information Systems II (*Python Programming for GIS*)
GEO 5408 - Web Mapping
GEO 5290/7390 - Independent Study
GEO 5395 - Problems in Applied Geography
GEO 5399A - Thesis
GEO 5399B - Thesis
GEO 7372 - Seminar in Geographic Information Science (designed a new topics course "Big Geodata and Human Mobility Modeling")
GEO 7999C - Dissertation

Courses Taught at ETH Zurich (as guest lecturer)

Undergraduate level courses

GIS III (for Dr. Martin Raubal)

Graduate level courses

Mobile GIS (for Dr. Martin Raubal)

Courses Taught at University of California Santa Barbara (as teaching assistant)

Undergraduate level courses

Geog 176A - Fundamental GIS (for Dr. Keith Clarke)

Geog 176B - Technical Issues in GIS, UC Santa Barbara (for Dr. Michael Goodchild)
Geog 176C - GIS Applications, UC Santa Barbara (for Dr. Keith Clarke and Dr. Martin Raubal)
Geog 12 - Maps and Mapping, UC Santa Barbara (for Dr. Micah Brachman)
Geog 126 - Maps and Society, UC Santa Barbara (for Dr. Keith Clarke)

C. Graduate Theses/Dissertations, Honors Theses, or Exit Committees (* indicates co-advised)

Student	*Role*	*Thesis*	*Degree*	*Status*
Jilin Hu	Advisor	TBD	Ph.D.	In progress
Khan Mortuza Bin Asad	Advisor	TBD	Ph.D.	In progress
Xujiao Wang	Advisor	Location-based Social Media for Activity Space Modeling	Ph.D.	Completed 2019/08
Ben Wang	Advisor	Extracting Spatio-temporal Patterns of Human Mobility during COVID-19: A Case Study of Chicago	M.S.	Completed 2021/08
Matthew Garza	Advisor	Comparing Spatial-Temporal Fire Risk Prediction Models: A Case Study of Austin, TX	M.A.G.	In progress
Adailin Lebron Bengochea	Advisor	Analyzing Human Interest to Hurricane Harvey using Location Based Social Media and Tobler's First Law of Geography	M.A.G.	Completed 2018/08
Jacob H. Combs	Advisor	Identifying Functional Urban Regions from Bluetooth Data: A Case Study of Austin	M.A.G.	Completed 2018/05
Lenee Dedeaux*	Advisor	Predicting Groundwater Level Using Data Mining Techniques: A Case Study of the Edwards Aquifer	M.S.	Completed 2017/05
Ugochukwu Francis Umeokafor	Advisor	Predicting Travel Destinations from Geotagged Flicker Photos	M.A.G.	Completed 2017/12
Patrick Sullivan	Advisor	Fighting Traffic with Emerging Technologies: An Analysis of Austin Traffic using Dynamic Time Warping and Bluetooth Data	B.S. Honor Thesis	Completed 2019/05
Brietta Perez	Advisor	Automating Calculation of Taxi Trip Frequency per Census Tract using Python	Undergraduate Independent Study	Completed 2016/05
Mei Yang	Committee Member	TBD	Ph.D.	In progress
Monica Medel	Committee Member	Diffusion of Fear of Crime using Social Media: An Analysis using Twitter	Ph.D.	In progress
Timothy R Bobo		Floor-level Occupancy Estimation of	M.A.G.	In progress

		a Multi-Story Building Using Coarse Wi-Fi Data		
Bradley Johnson	Committee Member	Detecting Impervious Surfaces in San Antonio with Artificial Lighting in Astronaut Photography from the International Space Station	M.A.G.	Completed 2020/05
Brandon Rose	Committee Member	Dune Feature Extraction Using Image Texture and Patch Metrics	M.S.	Completed 2019/12
Yahan Teng	Committee Member	Diffusion of Terrorist Attack Message on Twitter: Patterns and Factors	M.S.	Completed 2017/08
Alex Martinez	Committee Member	Site Selection of Offshore Wind Farms using Fuzzy Modeling	M.A.G.	Completed 2017/05
Nicholas Mclean	Committee Member	Automated Mapping Through GDELT and Python: An Analysis of Iraqi Kurdistan	M.A.G.	Completed 2015/05

D. Courses Prepared and Curriculum Development

Course	*Institute*	*Date Taught*	*Additional Comments*
Geo 7372: Seminar in Geographic Information Science (Big Geo-data and Human mobility modeling)	Texas State University	August 2020 - Present	New topics course development
GEO 5395 - Problems in Applied Geography	Texas State University	August 2020 - Present	New topics course development
Geo 5419: Geographic Information Systems II	Texas State University	January 2016 - Present	Partially redesigned course materials and labs
Geo 4422/5408: Web Mapping	Texas State University	August 2016 - Present	Recreated all course materials and labs
Geo 4427: GIS Design and Implementation	Texas State University	August 2014 - Present	Course projects received multiple awards and recognitions
Geo 3411: Maps and Mapmaking	Texas State University	August 2014 – May 2016	N/A
GEO 4393C: GeoProgramming	Texas State University	N/A	Course proposal and development
GIS II/GIS III	ETH Zurich	May 2013	Designed geostatistics lab modules

E. Teaching Grants and Contracts

Yuan, Y. (Principal). Service-learning Mini-Grant, Service-Learning Excellence Program, Texas State University, 500 USD, 2023

Yuan, Y. (Principal). Service-learning Mini-Grant, Service-Learning Excellence Program, Texas State University, 500 USD, 2022

Yuan, Y. (Principal). Service-learning Mini-Grant, Service Learning Excellence Program, Texas State University, 350 USD, 2016

F. Other

Geo 5309 (Guest lecture on big data analytics). (September 1, 2014 - Present).

G. Teaching Professional Development Activities Attended

Training, "Excellence in Teaching and Learning," Texas State University. (September 1, 2014 – May 1, 2015).

III. SCHOLARLY/CREATIVE

A. Works in Print (including works accepted, forthcoming, in press)

1. Books

a. Scholarly Monographs

N/A

b. Textbooks

N/A

c. Edited Books

N/A

d. Chapters in Books

Liu, Y., Gao, S., **Yuan, Y.**, Zhang, F., Kang, C., Kang, Y., Wang, K. (2021). Methods of social sensing in urban studies. In X. Yang (Ed), *Urban Remote Sensing* (*2nd Edition*), Wiley-Blackwell, 71-89.

Yuan, Y., Bin Asad, K., Qiang, Y., Chow, T. E. (2020). Point Pattern Analysis, *The Geographic Information Science & Technology Body of Knowledge* (1st Quarter 2020 Edition), doi: 10.22224/gistbok/2020.1.13.

Chow, T. E., **Yuan, Y**. (2019). GIS APIs, *The Geographic Information Science & Technology Body of Knowledge* (2nd Quarter 2019 Edition), doi: 10.22224/gistbok/2019.2.15.

Yuan, Y., Kang, C., Cao, P., & Liu, Y. (2017). A review of big geodata analytics in urban studies. In: *Frontier of GIS*. Higher Education Press, 167–189.

Yuan, Y. (2017). Exploring spatial decay effect in mass media and social media: a case study of China. In D. A. Griffith, Y. Chun, & D. J. Dean (Eds.), *Advances in GeoComputation.* Springer, ISBN: 978-3-319-22786-3, 1-8.

2. Articles

a. Refereed Journal Articles

Yuan, Y., Xu, Y. (2022). Modeling Activity Spaces using Big Geo-Data: Progress and Challenges. *Geography Compass*, in press

Yang, M., **Yuan, Y.**, Zhan, F. B. (2022). Urban Interactions based on Floating Car Data – A Case Study of Chengdu, China. *Annals of GIS*, in press.

Ekeanyanwu, C.V., Bose, P., Beavers, M., **Yuan, Y.** & Obisakin, I. (2022). Modeling and Mapping Flood Hazard with a Flood Risk Assessment Tool: A Case Study of Austin, Texas. *Journal of Geographic Information System, 14*(4), 332-346.

Xing, X., **Yuan, Y.**, Huang, Z., Peng, X., Zhao, P., & Liu, Y. (2022). Flow trace: A novel representation of intra-urban movement dynamics. *Computers, Environment and Urban Systems, 96*, 101832.

Wang, X., **Yuan, Y.** (2021). Modeling human activity spaces from location-based social media: a case study of Weibo, *The Professional Geographer, 73*(1), 96-114.

Liu, Y., **Yuan, Y.**, Zhang, F. (2020). Mining urban perceptions from social media data. *Journal of Spatial Information Science*, *20*, 51-55.

Yuan, Y., Lu, Y., Chow, T. E., Ye, C., Alyaqout, A., Liu, Y. (2020). The missing parts from social media enabled smart cities: who, where, when, and what? *Annals of the Association of American Geographers*, *110*, 462-475.

Chen, L., Gao, Y., Zhu, D., **Yuan, Y.**, Liu, Y. (2019). Quantifying the scale effect in geospatial big data using semi-variogram, *PloS One*, *14*(11), e0225139.

Liu, Y., **Yuan, Y.**, Gao, S. (2019). Modelling the vagueness of areal geographic objects: A categorization system. *ISPRS International Journal of Geo-Information*, *8*(7), 306.

Yuan, Y., Wang, X. (2018). Exploring the effectiveness of location-based social media in modeling user activity space: a case study of Weibo. *Transactions in GIS*, *22*(4), 930-957.

Yuan, Y., Wei, G., Lu, Y. (2018). Evaluating gender representativeness of location-based social media: a case study of Weibo. *Annals of GIS*, *24*(3), 163-176.

Yuan, Y., Liu, Y., Wei, G. (2017). Exploring inter-country connection in mass media: a case study of China. *Computers, Environment and Urban Systems*, *62*, 86-96.

Yuan, Y., Raubal, M. (2016). Analyzing the distribution of human activity space from mobile phone usage - an individual and urban-oriented study. *International Journal of Geographic Information Science*, *30*(8), 1594-1621.

Yuan, Y., Raubal, M. (2016). Exploring georeferenced mobile phone datasets - a literature survey. *Geography Compass*, *10*(6), 239-252.

Yuan, Y., Medel, M. (2016). Exploring international travel behavior from geotagged photos: a case study of Flickr. *PloS ONE, 11*(5), e0154885.

Ahas, R., Anto, A., **Yuan, Y.**, Raubal, M., Smoreda, Z., Yu, L., Ziemlicki, C., Tiru, M., Zook, M. (2015). Everyday space-time geographies: Using mobile phone based sensor data to monitor urban activity in Harbin, Paris and Tallinn. *International Journal of Geographic Information Science, 29*(11), 496-520.

Yuan, Y., Raubal, M. (2014). Measuring similarity of mobile phone user trajectories - a spatio-temporal edit distance method. *International Journal of Geographic Information Science, 28*(3), 496-520.

Yuan, Y., Raubal, M., Liu, Y. (2012). Correlating mobile phone usage and travel behavior – a case study of Harbin, China. *Computers, Environment and Urban Systems, 36*(2), 118-130.

Liu, Y., **Yuan, Y.**, Xiao, D., Zhang, Y., Hu, J. (2010). A point set based approximation for areal objects – a case study of representing localities. *Computers, Environment and Urban Systems, 34*(1), 28-39.

Chen, K., Lin, X., **Yuan, Y.**, Li, R., Liu, Y. (2009). Representation and management of type information in digital gazetteers. *Geography and Geo-Information Science, 25*(5), 6-11.

Liu, Y., **Yuan, Y.**, Zhang, Y. (2008). A cognitive approach to modeling vague geographical features – a case study of Zhongguancun. *Journal of Remote Sensing, 12*(2), 370-377.

Yuan, Y., Gao, Y. (2008). Object-oriented modeling and implement technologies of spatio-temporal data. *Geography and Geo-Information Science, 28*(3), 41-44.

b. Non-refereed Articles

N/A

3. Conference Proceedings

a. Refereed Conference Proceedings

Yuan, Y. (2021). The impact of scale on spatial connections: an exploratory analysis. In *Proceedings of the International Cartographic Association (ICA), 4*, 1-5.

Yuan, Y., Mills, D. (2019). Exploring Urban Dynamics from Bluetooth Tracking Data: A Case Study of Austin, Texas. In *Proceedings of the International Cartographic Association (ICA), 2,* 153, 1-6.

Yuan, Y., Le Noc, M. (2018). Exploring Urban Mobility from Taxi Trajectories: A Case Study of Nanjing, China. In *Proceedings of the 7th International Conference on Data Science, Technology and Applications (DATA)*. Porto, Portugal. SciTePress, 1-6.

Yuan, Y. (2017). Modeling inter-country connection from geotagged news reports: A time-series analysis. In *Proceedings of the International Conference on Data Mining and Big Data, Lecture Notes in Computer Science (LNCS),* Springer, 183–190.

Yuan, Y., Raubal, M. (2012). Extracting dynamic urban mobility patterns from mobile phone data. In *Proceedings of Geographic Information Science (GIScience 2012)*, Columbus, Ohio. Springer, vol. 7478, 354-367.

Kang, C., Gao, S., Lin, X., Xiao, Y., **Yuan, Y.**, Liu, Y., Ma, X. (2010). Analyzing and geo-visualizing individual human mobility patterns using mobile call records. In *Proceedings of Geoinformatics 2010*. Beijing, China. IEEE Xplore, 1-7 (doi:10.1109/ GEOINFORMATICS.2010.5567857).

Liu, Y., Li, R., Chen, K., **Yuan, Y.**, Huang, L., Yu, H. (2009). KIDGS: A geographical knowledge-informed digital gazetteer service. In *Proceedings of Geoinformatics 2009*. Fairfax, VA. IEEE Xplore, 1-6 (doi: 10.1109/GEOINFORMATICS.2009.5293495).

b. Non-refereed

N/A

4. Refereed Extended Abstracts

Zhang, P., Lee, H., **Yuan, Y.** (2020). The impacts of social ties and sentiment on topic popularity in microblogs. In *the Southwest Decision Sciences 50th Annual Meeting*, San Antonio, TX, USA, 1-2.

Yuan, Y., Wei, G. (2016). Evaluating demographic representativeness of location-based social media: a case study of Weibo. In *the 19th AGILE Conference on Geographic Information Science*, Helsinki, Finland, 1-3.

Yuan, Y., Liu, Y. (2010). Modeling temporal uncertainty of events-a descriptive perspective. In *Geographic Information Science - 6th International Conference*, GIScience 2010, Zurich, Switzerland, 1-5.

Yuan, Y., Raubal, M. (2010). On correlation between Mobile Phone Usage and Travel Behavior - a case study of Harbin, China. In: *Geographic Information Science - 6th International Conference*, GIScience 2010, Zurich, Switzerland, 1-4.

5. Reports

Yuan, Y., Raubal, M. (2014). Project report: Characterizing human mobility from mobile phone usage, *Swiss National Science Foundation*, Project number: 205121_141284.

6. Book Reviews

N/A

7. Other Works in Print

Patents

Liu, Y., Zhang, Y., Li, R., **Yuan, Y.**, Chen, C., Gao, Y. "Place name searching method and system based on context". International. Other Nations: China. Number / ID: CN101957819B. (Date Awarded: 2012).

B. Works not in Print

1. Papers Presented at Professional Meetings

Ekeanyanwu, C.V., Bose, P., Beavers, M., **Yuan, Y.** & Obisakin, I. Applied Geography Conference, “Modeling and Mapping Flood Hazard with a Flood Risk Assessment Tool: A Case Study of Austin,” Online. (2022)

Yuan, Y., International Cartographic Conference, "The impact of scale on spatial connections: an exploratory analysis," Florence, Italy. (2021).

Wang, B., **Yuan, Y.** Annual Meeting of the Association of American Geographers, “Extracting Spatio-Temporal Patterns of Human MobilityTaxi Trips During COVID-19: A Case Study of Chicago,” Seattle, WA, United States. (2021).

Hu, J., Hussein, M. A., **Yuan, Y.**, Bin Asad, K. M., Annual Meeting of the American Association of Geographers, "Extracting Dynamic Urban Mobility Patterns during COVID-19 from Bluetooth Tracking Data," Seattle, WA, United States. (2021).

Yuan, Y., Geoinformatics 2021, "Understanding Urban Dynamics from Bluetooth Tracking Data: An Exploratory Analysis," Nanchang, China. (2021).

Yuan, Y., Lu, Y., Liu, Y., Chow, E. The 26th International Conference on Geoinformatics, “The missing parts from social media enabled smart cities: who, where, when, and what,” Sydney, Australia. (2019).

Yuan, Y., Mills D., The 29th International Cartographic Conference, “Exploring urban dynamics from Bluetooth tracking data: A case study of Austin, Texas,” Tokyo, Japan. (2019).

Yuan, Y., Lu, Y., Liu, Y., Chow, E. Annual Meeting of the Association of American Geographers, “The missing parts from social media enabled smart cities: who, where, when, and what,” Washington, D.C., United States. (2019).

Wang, X., **Yuan, Y.**, Annual Meeting of the Association of American Geographers, “Measuring user activity similarity from location-based social media,” Washington, D.C., United States. (2019).

Yuan, Y., Le Noc, M. Annual Meeting of the Association of American Geographers, “Exploring urban dynamics from taxi trajectories: a case study of Nanjing, China,” New Orleans, United States. (2018).

Yuan, Y., Wang, X. The 26th International Conference on Geoinformatics, “Exploring the effectiveness of location-based social media in modeling user activity space: A case study of Weibo,” Kunming, China. (2018)

Yuan, Y., Wei, G., Chow, T. K. E., & Hagelman, R. R. The 25th International Conference on Geoinformatics, “Investigating social media landscapes from Twitter: A case study of Austin, Texas,” Buffalo, United States. (2017)

Umeokafor, U., **Yuan, Y.**, Annual Meeting of the Association of American Geographers, “Predicting future travel destinations from geotagged big data,” Boston, United States. (2017).

Yuan, Y., Wei, G., Annual Meeting of the Association of American Geographers, "Evaluating demographic representativeness of location-based social media: a case study of Weibo," Boston, United States. (2017).

Wang, X., **Yuan, Y.**, Annual Meeting of the Association of American Geographers, "Measuring trajectories similarity from location based social media: A vector-based analysis," Boston, United States. (2017).

Dedeaux, L., Schwartz, B. F., **Yuan, Y.**, The Geological Society of America Annual Meeting, "Applying data mining techniques to identify outlier wells using groundwater level data: A case study of the Edwards Aquifer," Denver, United States. (2016).

Wang, X., **Yuan, Y.**, Annual Meeting of the Association of American Geographers, "Exploring the efficiency of location-based social media in modeling human activity patterns: A case study of Beijing, China," San Francisco, United States. (2016).

Yuan, Y., Medel, M., Annual Meeting of the Association of American Geographers, "Characterizing international travel behavior from geotagged photos: A case study of Flickr," San Francisco, United States. (2016).

Yuan, Y., Annual Meeting of the Association of American Geographers, "Analyzing the distribution of human activity space from mobile phone usage," Chicago, United States. (2015).

Yuan, Y., Raubal, M., Mobile Ghent 2013, "Investigating the distribution of human activity space from mobile phone usage," Ghent, Belgium. (2013).

Yuan, Y., Annual Meeting of the Association of American Geographers, "A framework for characterizing human mobility from georeferenced mobile phone data," Los Angeles, United States. (2013).

Yuan, Y., Seminar on "mobility, segregation and neighborhoods change", "Identifying dynamic urban mobility patterns from mobile phone data," Tartu, Estonia. (2013).

Yuan, Y., Annual Meeting of the Association of American Geographers, "Exploring the correlation between human mobility and cell phone usage," Seattle, United States. (2011).

2. Invited Talks, Lectures, and Presentations

Yuan, Y., "Modeling human mobility from big geo-data," Max Planck Institute for Demographic Research, Rostock, Germany (2022).

Yuan, Y., "Modeling human mobility from big geo-data," Nanjing Normal University, Nanjing, China. (2021).

Yuan, Y., "Modeling human mobility from mobile phone data," Civic Data Design Lab, Massachusetts Institute of Technology, Boston, MA. (2020).

Yuan, Y., "From one step to a million: Characterizing human mobility from big geo-data," Wuhan University, Wuhan, China. (2018).

Yuan, Y., " From one step to a million: Characterizing human mobility from big geo-data," China University of Geosciences, Wuhan, China. (2018).

Yuan, Y., "Characterizing human mobility from big geodata," Northwest University, Xi'an, China. (2017).

Yuan, Y., Department Seminar, "Characterizing human mobility from Information and Communication Technologies (ICTs)," Department of Computer Science, Wuhan University, Wuhan, China. (2016).

Yuan, Y., Departmental Seminar, "Characterizing human mobility from mobile phone usage," Department of Computer Science, Texas State University, San Marcos, United States. (2015).

Yuan, Y., Departmental Colloquium, "Characterizing human mobility from big geodata," Department of Geography and the Environment, University of Texas, Austin. United States. (2014).

Yuan, Y., Transportation Research Board Annual Meeting (TRB), Eisenhower fellowship recipient session, "Characterizing human mobility and travel behavior from mobile phone usage," Washington, D.C. United States. (2013).

Yuan, Y., Institute Meeting, "Spatio-temporal data mining based on georeferenced mobile phone data," ETH Zurich, Zurich, Switzerland. (2012).

3. Consultancies

N/A

4. Workshops

Yuan, Y., Raubal, M. (2012). Similarity measurement of mobile phone user trajectories - a modified edit distance method. In: *Workshop on "Progress in Movement Analysis - Experiences with Real Data*, Zurich, Switzerland, 1-3.

Yuan, Y., Raubal, M. (2012). A framework for spatio-temporal clustering from mobile phone data. In: *AGILE Workshop: Complex Data Mining in a GeoSpatial Context*, Avignon, France, 1-3.

Yuan, Y., Raubal, M. (2011). Extracting clustered urban mobility and activities from georeferenced mobile phone datasets. In: *ISPRS Workshop on Spatio-Temporal Data Mining and Analysis (STDM'11*, London, United Kingdom, 21-23.

Yuan, Y., Raubal, M. (2010). Spatio-temporal knowledge discovery from georeferenced mobile phone data. In: *MPA'10 - 1st Workshop on Movement Pattern Analysis*, Zurich, Switzerland, 121-126.

5. Other Works not in Print

a. Works "submitted" or "under review"

b. Works "in progress"

Bin Asad, K., **Yuan, Y.** Analyzing human mobility based on textual analysis, *to be submitted to Transactions in GIS*.

Yuan, Y, Chow, T. E., Wang, F. Review of third-party traffic data, *to be submitted to Transport Review*.

Yuan, Y, Wylie, A. G., Analyzing the spatial-temporal patterns of fire data using machine learning methods, *to be submitted to Transactions in GIS*.

Yuan, Y, Liu, Y., Analyzing the temporal uncertain of events: a descriptive perspective, *to be submitted to Annals of GIS*.

C. Grants and Contracts

1. Funded External Grants and Contracts

2023, "Exploring the Spatio-temporal Patterns of Urban Fire Incidents" (G), U.S. National Committee for the International Cartographic Association, PI: **Y. Yuan**, 1,500 USD.

2022-2023, "National Summer Transportation Institute" (G), Federal Highway Administration, PI: X. Luo (Co-PIs: L. Liang, **Y. Yuan**, F. Wang), 50,000 USD.

2021-2022, "National Summer Transportation Institute" (G), Federal Highway Administration, PI: F. Wang (Co-PIs: X. Luo, **Y. Yuan**) 50,000 USD.

2021, "AI for Earth Grant" (G), Microsoft, Inc, PI: **Y. Yuan** (Co-PI: Z. Zong),15,000 USD.

2021, "The Impact of Scale on Spatial Connections: An Exploratory Analysis" (G), International Cartographic Association Grant, PI: **Y. Yuan**, 1,100 USD.

2019, "Exploring Urban Dynamics from Bluetooth Tracking Data: A Case Study of Austin, Texas" (G), International Cartographic Association Grant, PI: **Y. Yuan**, 100,000 JPY.

2012-2013, "Characterizing Human Mobility from Mobile Phone Usage" (G), Swiss National, PI: M. Raubal (Supporting Personnel: **Y. Yuan**), 78,416 CHF.

2012-2013, "Characterizing Human Mobility from Mobile Phone Usage" (G), Dwight David Eisenhower Graduate Fellowship, U.S. Department of Transportation, PI: M. Raubal (Co-PI: **Y. Yuan**), 5,000 USD.

2. Submitted, but not Funded, External Grants and Contracts

2022-2027 "Center for Resilient, Equitable, Sustainable, and Efficient Transit" (G), University Transportation Center (G), Department of Transportation, PI (Center Director): X. Zhou (Site PIs: W. Fan, Y. Fan, G. List, Y. Ouyang, S. Peeta, Y. Yuan; Site Co-PIs: J. Andino, P. Mirchandani, R. Pendyala, F. Wang), 10,000,000, USD.

2022, "SitS: Sensing the Impacts of Climate Change on Historically Unpredictable Volumetric Fluctuations in Surficial Soils" (G), National Science Foundation, PI: S. Faroughi (Co-PIs: S. Krause, Y. Yuan).

2022, "Determine Feasibility and Methodologies of Incorporating Third-Party Traffic Data into Transportation Planning" (G), Texas Department of Transportation, PI: Y. Yuan (Co-PIs: F. Wang, T. Chow).

2021, "Improve Traffic Analysis and Mobility Modeling Using Information and Communication Technologies" (G), Texas Department of Transportation, PI: Y. Yuan (Co-PIs: F. Wang, T. Chow, C. Hanks).

2019, "Integrated and Personalized Flood Monitoring with Multisource Data" (G), National Science Foundation, PI: T. E. Chow (Co-PIs: Y. Chiang, Z. Chen, Y. Yuan).

2018, "SC&C: Developing Data-Driven Fire Services via Smart Technologies and Connected Communities" (G), National Science Foundation (NSF), PI: Z. Zong (Y. Yuan as Co-PI).
2016, "The Efficacy of Location-Based Social Media for Modeling Human Mobility: Representativeness, Reliability, and Rhythms across Geographies" (G), National Science Foundation (NSF), PI: Y. Yuan (Co-PIs: Y. Lu, T. Chow, B. Gao).
2016, "PFI: BIC: Developing Replicable and Scalable Technology for Data-Driven Smart Fire Services" (G), National Science Foundation (NSF), PI: Z. Zong (Y. Yuan as Co-PI).
2015, "BIGDATA: Collaborative Research: IA: Space-Time Integration of Big Data for Population-Infrastructure Informatics during Disaster" (G), National Science Foundation (NSF), PI: T. Chow (Y. Yuan as Senior Personnel).
2015, "Communication Accessibility and Social Media Landscapes of Austin, Texas" (G), The Urban Communication Foundation, PI: Y. Yuan (Co-PI: R. Hagelman).
2015, "The Efficacy of Location-Based Social Media for Modeling Human Mobility: Representativeness, Reliability, and Rhythms across Geographies" (G), National Science Foundation (NSF), PI: Y. Yuan (Co-PIs: Y. Lu, T. Chow).
2015, "Shining: Data-driven Smarter City Services to Support Public Safety" (G), National Science Foundation (NSF), PI: Z. Zong (Y. Yuan as Co-PI).
2014, "Geotargeting and Geoprofiling Research Plan: A Closer Look of Platform Users" (GFT), Tapjoy, Inc, PI: Y. Yuan.
2014, "A Space-Time Emergency Response System for Building Disaster Resilient Communities" (G), National Science Foundation (NSF), PI: T. Chow (Y. Yuan as Senior Personnel).

3. Funded Internal Grants and Contracts

2017-2018, "Developing Replicable and Scalable Technology for Data-driven Smart Fire services" (G), Multidisciplinary Team Incentive Grant (G), Texas State University, PI: Z. Zong (Co-PIs: **Y. Yuan**, A. Roundtree), 2,500 USD.
2013, "Characterizing Human Mobility from Mobile Phone Usage" (G), Graduate Division Dissertation Fellowship, UC Santa Barbara, PI: **Y. Yuan**, 6,667 USD plus tuition waiver.
2006-2007, "Object-oriented Modeling and Implementation of Spatio-temporal Data" (G), Undergraduate Research Fund, Institute of RS and GIS, Peking University, China; PI: **Y. Yuan**, 2,500 CNY.

4. Submitted, but not Funded, Internal Grants and Contracts

2019, "The Impacts of Social Ties and Sentiment on Topic Popularity in Microblogs" (G), Research Enhancement Program of Texas State University, PI: P. Zhang (Y. Yuan as Co-PI).

2018, "Exploring Urban Mobility from Bluetooth Data: A Case Study of Austin, Texas" (G), Research Enhancement Program of Texas State University, PI: Y. Yuan.
2017, "Communication Accessibility and Social Media Landscapes of Austin, Texas" (G), Research Enhancement Program of Texas State University, PI: Y. Yuan (Co-PI: T. Chow).
2016, "Communication Accessibility and Social Media Landscapes of Austin, Texas" (G), Research Enhancement Program of Texas State University, PI: Y. Yuan (Co-PI: T. Chow).
2016, "Evaluating K-12 Professional Learning Community from Big Data: A Comparative Study of Administrative Data and Location-Based Social Media" (G), Multi-disciplinary

Internal Research Grant of Texas State University, PI: Y. Yuan (Co-PIs: L. Feng and J. Gao).

2015, "Modeling Demographic Representativeness from Location-based Social Media: A Case Study of San Marcos - The Nation's Fastest Growing City" (G), Research Enhancement Program of Texas State University.

2014, "Characterizing Human Mobility Patterns from Social Network Usage - A Cross-country and Cross-cultural Study" (G), Research Enhancement Program of Texas State University.

5. Pending Internal and External Grants and Contracts

2023-2024 "Developing a GIS System for Voting Locations" (G), Comal County Democrats, PI: Y. Yuan (Co-PI: J. Jensen).

2023-2025 "REU SITE: Multidisciplinary Undergraduate Research in Technology-Enhanced Civil Infrastructure" (G), National Science Foundation, PI: S. Faroughi (Y. Yuan as a participating mentor).

D. Scholarly / Creative Fellowships, Awards, Honors

2022, Top 20 Finalist, Global Young Scientist in GIScience, The 3rd Global Young Scientist Forum.

2022, Best Paper for Map Use/Information Graphics (co-authored with C.V. Ekeanyanwu, P. Bose, M. Beavers, and I. Obisakin), Applied Geography Conference.

2012, Excellence in Research, Department of Geography, UC Santa Barbara.

2009, Person of the Year, School of Earth and Space Science, Peking University.

2009, Undergraduate Academic Star, Peking University.

2007, Excellent Paper Award for Youth, the 4th China Association for Geographic Information System Congress.

2006-2007, Yang Fuqing & Wang Yangyuan Academician Scholarship, Peking University.

2007, Excellence Award for Undergraduate Research Fund, Beijing Key Lab of Spatial Information, Integration and Its Applications.

E. Scholarly / Creative Professional Development Activities Attended

N/A

F. Media Recognition

N/A

IV. SERVICE

A. Institutional

1. University

2022-present, Core Faculty, Establishing a Data Science Center Work Group, Texas State University.
2019-2021, College of Liberal Arts Representative, Quality Enhancement Committee, Texas State University.
2017, Presenter, Service-Learning Excellence Program, Texas State University.

2. College

N/A

3. Department/School

2022-2023, Member of Graduate Committee, Department of Geography and Environmental Studies, Texas State University.
2022-2023, Chair of Recruitment and Communication Committee, Department of Geography and Environmental Studies, Texas State University.
2021-2022, Member of Ad hoc Online Education Committee, Department of Geography and Environmental Studies, Texas State University (*led the development of a new online M.A.G in GIS program*).
2021-2022, Member of Scholarships/Awards Committee, Department of Geography and Environmental Studies, Texas State University.
2021, Member of Urban Geography Position Hiring Committee, Department of Geography, Texas State University.
2020-2021, Member of Graduate Committee, Department of Geography, Texas State University.
2019-2020, Member of Undergraduate Committee, Department of Geography, Texas State University.
2019, Panelist, Women in GIS Panel, Support Women in Geography (SWIG) Group, Texas State University.
2019, Panelist, Career Panel, Graduate Forum, Department of Geography, Texas State University.
2018-2019, Member of Scholarships/Awards Committee, Department of Geography, Texas State University.
2017-2018, Member of Colloquium Committee, Department of Geography, Texas State University.
2016, Presenter, Support Women in Geography (SWIG) Weekly Meeting, Department of Geography, Texas State University.
2016-2017, Member of Diversity Committee, Department of Geography, Texas State University.
2016-2017, Member of Undergraduate Committee, Department of Geography, Texas State University.
2015-2021, Faculty Advisor, Society of Geographic Information Science (SoGIS), Texas State University.
2015-2016, Member of Graduate Committee, Department of Geography, Texas State University.
2015-2016, Member of Cartography Search Committee, Department of Geography, Texas State University.
2014-2015, Member of Scholarships/Awards Committee, Department of Geography, Texas State University.
2014-2015, Member of Recruitment and Communication Committee, Department of Geography,

Texas State University.
2009-2010, Member of Graduate Student Committee, Department of Geography, UC Santa Barbara.

B. Professional

1. Professional Organizations

2020- 2021, Member of Site Selection Committee, Chinese Professional in Geographic Information Systems.
2019- 2021, Chair of Education Committee, Chinese Professional in Geographic Information Systems.

2017-2018, Member of the Board of Directors (BOD), Chinese Professional in Geographic Information Systems.
2012-2013**,** Eisenhower Fellow, Department of Transportation, USA.
2011-2012, Professional Women's Association, UC Santa Barbara.

2. Invited Reviewer for Funding Agencies

National Science Foundation (NSF), Methodology, Measurement, and Statistics Division
National Science Foundation, Civil, Mechanical and Manufacturing Innovation Division
Hong Kong Research Grants Council

3. Editorial Board
2020- Editorial Board Member, Frontiers in Sustainable Cities

4. Invited Reviewer for Academic Journals, Books, and Conferences

Nature (Human Behavior); Annals of the Association of American Geographers; International Journal of Geographical Information Science; Computers, Environment, and Urban Systems; IEEE Transactions on Intelligent Transportation Systems, Transactions in GIS; Transportmetrica A: Transport Science; Journal of Spatial Information Science; Journal of Urban Technology; Journal of Location Based Service; Cartography and Geographic Information Science; IEEE Transactions on Knowledge and Data Engineering; PLoS One; International Journal of Sustainable Transportation; Tourism Management; Ecological Informatics; Cities; Sustainability; ISPRS International Journal of Geo-Information; Sensors; Cities; Journal of Cartography and GeoInformation; Global Ecology and Conservation; Journal of Spatial Science; Journal of Intelligent Transportation Systems; Tourism Geographies; Intelligent Information Management; Science and Information Conference; Current Urban Studies; Journal of Hospitality Management and Tourism; Geografiska Annaler Series B Human Geography; Natural Hazards; Bentham E-books; Urban Remote Sensing; International Journal of Digital Earth; International Journal of Applied Earth Observation and Geoinformation.

5. Conference Sessions Organized and Committee Participation

2021, Session Organizer, International Conference of GeoInformatics, Nanchang, China.
2020, Program Committee Member, 3rd ACM SIGSPATIAL International Workshop on

Advances in Resilient and Intelligent Cities.
2019, International Steering Committee Member, International Conference of GeoInformatics, Sydney, Australia.
2019, Technical Committee Member, International Workshop on GeoComputation for Social Sciences and Intelligent Space Information Service, Wuhan, China.
2019, Session Organizer, Annual Conference of the American Association of Geographers, Washington, D.C., USA.
2017, Session Chair and Organizer, Annual Conference of the American Association of Geographers, Boston, USA.
2017, Session Chair, International Conference of GeoInformatics, Buffalo, USA.
2017, Session Chair, International Conference on Data Mining and Big Data, Fukuoka, Japan.
2016, Technical Committee Member, Future Technologies Conference, San Francisco, USA.

C. Community

2021, Instructor, National Summer Transportation Institute Program, 2021.
2016, Texas State Representative and Presenter, GIS Day Event, Blinn College.

D. Organization Memberships

American Association of Geographers
Chinese Professional in Geographic Information Systems
Cartography and Geographic Information Society

E. Service Honors and Awards

2020, Achievement in GIS Award, Society for Geographic Information Science, Texas State University.

F. Service Grants and Contracts

N/A