

Cynthia Chen

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THINK LAB: <https://sites.uw.edu/thinklab>

I. PROFESSIONAL PREPARATION

Postdoctoral Fellowship, 5/2002–8/2003

Project Focus: Development of a mass-scrappage model for vehicle emissions

Advisor: Debbie Niemeier, University of California, Davis

Ph.D. Civil and Environmental Engineering, 1996-2001

Dissertation: An Exploration of Activity Scheduling and Rescheduling Processes

Advisor: Ryuichi Kitamura, University of California, Davis, CA

M.S. Transportation Engineering, 1993-1995

Thesis: A Comparison between Revealed Preference (RP) and Stated Preference (SP) based on Simulation Results

Advisor: Patrick Beaton, New Jersey Institute of Technology, Newark, NJ

B.A. Tourism, 1988-1992

Nan Kai University, Tianjin, China

II. APPOINTMENTS

- 2022-2024 Professor and Interim Chair of Industrial & Systems Engineering, University of Washington
- 2016–present Professor of Civil and Environmental Engineering, University of Washington
Adjunct Professor of Urban Design and Planning, University of Washington
- 2017–2019 Program director of Civil Infrastructure Systems, CMMI (Civil, Mechanical, and Manufacturing Innovation) division, National Science Foundation
- 2009–2016 Associate Professor of Civil and Environmental Engineering, University of Washington
Adjunct Associate Professor of Urban Design and Planning, University of Washington
- 2003–2009 Assistant Professor of Civil and Environmental Engineering, City College of New York
- 2002–2003 Lecturer of Civil Engineering, California State University, Sacramento
- 2001-2002 Transportation planner of Metropolitan Transportation Commission (MTC), Oakland, CA
- 1995-1996 Senior research associate of RDC, Inc., San Francisco, CA

III. HONORS AND AWARDS

- 2018 Facebook Crisis Informatics Research Awards (3 winners worldwide)
- 2015 Sweden Vinnmer Incoming Visit Fellow
- 2007 UTRC Emerging Scholar
- 1998 UCTC (University of California Transportation Center) Dissertation Award

IV. PEER-REVIEWED PUBLICATIONS (*superscript denotes graduate students and postdocs directly under my supervision*)

1. C. Cano-Calhoun*, D. Abramson, C. Chen (2024) On Your Own, Together: Regional Perspectives on Community Resource-sharing for Disaster Preparedness in Washington State. *Journal of Urban Affairs* (accepted).
2. E. Ugurel*, Y. Wang, R. Wang, S. Huang and C. Chen. Correcting missingness in passively-generated mobile data with multi-task Gaussian Processes. *Transportation Research Part C* (accepted).
3. E. Ugurel*, S. Huang and C. Chen, "Gaussian Process Learning for Location-Based Service Data," *2023 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)*, Taipei, Taiwan, 2023, pp. 1204-1207, doi: 10.1109/APSIPAASC58517.2023.10317343.
4. X. Guan*, G. Jia*, K. C. Kosaraju, V. Gupta and C. Chen, "Underreporting in COVID-19 Case Data Causes Policy Objectives Being Unmet," in *IEEE Transactions on Computational Social Systems*, <https://ieeexplore.ieee.org/document/10304600>.
5. Feng Lin, Xiaoning Qian, Bobak Mortazavi, Zhangyang Wang, Shuai Huang & Cynthia Chen (2023) Modeling User Choice Behavior under Data Corruption: Robust Learning of the Latent Decision Threshold Model, *IJSE Transactions*, DOI: [10.1080/24725854.2023.2279080](https://doi.org/10.1080/24725854.2023.2279080).
6. Idziorek*, K.; Abramson, D.; Kitagawa, N.; Yamamoto, T.; and Chen, C. Factors influencing willingness to share resources postdisaster: a cross-cultural comparison between US and Japanese communities. *Natural Hazards Review*, 24(4), <https://doi.org/10.1061/NHREFO.NHENG-1836>
7. Lin*, J.; Jenelius, E.; Cebecauer, M.; Rubensson, I.; and Chen, C. (2023) The equity of public transport crowding exposure. *Journal of Transport Geography*, 110, 103631, <https://doi.org/10.1016/j.jtrangeo.2023.103631>
8. Batur, I.; Dirks, A.; Bhat, C.; Polzin, S.; Chen, C.; and Pendyala, R. (2023) Analysis of changes in time use and activity participation in response to the COVID-19 pandemic in the United States: implications for well-being. *Transportation Research Record*, <https://doi.org/10.1177/03611981231165>.
9. Shea, K.; Chen, C.; and 76 other authors. (2023) Multiple models for outbreak decision support in the face of uncertainty. *Proceedings of the National Academy of Sciences*, 120(18), e2207537120, <https://doi.org/10.1073/pnas.2207537120>.
10. Lin*, J.; Chen, C. and Ohay, A. (2022) Socioeconomic and spatial disparity of bus ridership impacts in King County, WA, during COVID-19. *Transportation Research Record*, September 1, <https://doi.org/10.1177/03611981221116366>.
11. Guan*, X. and Chen, C. (2021) A behaviorally-integrated individual-level state transition model that can predict rapid changes in evacuation demand days earlier. *Transportation Research Part E Vol 152*, August 2021, 102381, <https://doi.org/10.1016/j.tre.2021.102381>
12. Yan*, P.; Lee, C.; Chu, C.; Chen, C. and Luo, Z. (2020) Matching and pricing in ride-sharing: optimality, stability and financial sustainability. *Omega*, Vol 102, <https://doi.org/10.1016/j.omega.2020.102351>
13. Zhu*, X.; Feng*, J.; Huang, S.; and Chen, C. (2020) An online updating method for time-varying preference learning. *Transportation Research Part C Vol 121*, <https://doi.org/10.1016/j.trc.2020.102849>
14. Feng*, J.; Huang, S.; Chen, C. (2020) A learning framework for personalized random utility maximization (RUM) modeling of user behavior. *IEEE Transactions on Automation Science and Engineering*, DOI: [10.1109/TASE.2020.3041411](https://doi.org/10.1109/TASE.2020.3041411)

15. Feng*, J.; Huang, S. and Chen, C. (2020) Modeling user interaction with app-based reward-system: a graphical model approach integrated with max-margin learning. *Transportation Research Part C* 120, <https://doi.org/10.1016/j.trc.2020.102814>
16. Zhu*, X.; Wang*, F.; Chen, C. and Reed, Derek (2019) Personalized recommendation systems for promoting sustainable travel behaviors. Special issue of the 23rd ISTTT conference in Lausanne, *Transportation Research Part C* 38, 730-750. <https://doi.org/10.1016/j.trpro.2019.05.038>
17. Wang*, F.; Wang, J.; Cao*, J.; Chen, C.; and Ban, J. (2019) Extracting Trips from Multi-Sourced Data for Mobility Pattern Analysis: An App-Based Data Example. *Transportation Research Part C* 105, 183-202. <https://doi.org/10.1016/j.trc.2019.05.028>
18. Guan*, X and Chen, C. (2018). General methodology for inferring failure-spreading dynamics in networks. Proceedings of the National Academy of Sciences. DOI: <https://doi.org/10.1073/pnas.1722313115>
19. Wang*, F. and Chen, C. (2018) On data processing required to derive mobility patterns from passively-generated mobile phone data. *Transportation Research Part C*, 87, 58-74. DOI: 10.1016/j.trc.2017.12.003.
20. Guan*, X.; Chen, C.; and Work, D. (2016) Tracking the Evolution of Infrastructure Systems and Mass Responses Using Publically Available Data. PLoS ONE 11(12): e0167267. doi:10.1371/journal.pone.0167267
21. Chen, C.; Ma, J.; Susilo, Y.; Liu, Y and Wang*, M. (2016) The promises of big data and small data for travel behavior (aka human mobility) analysis. *Transportation Research Part C*, 68, 285-299.
22. Chen, C.; Batty, M.; van Vuren, T. (2015) Editorial to the Special Issue on Passively-generated Data for Travel Behavior Analysis and Planning Applications. *Transportation*, <http://10.1007/s11116-015-9614-1>
23. Chen*, L.; Chen, C. and Ewing, R. (2015) Left-turn phase: permissive, protected, or both? *Accident, Analysis & Prevention* 76, 102-109.
24. Hong*, J. and Chen, C. (2014) The role of built environment on safety and walking: examining direct and indirect impacts. *Transportation* 41(6), 1171-1185. (IF: 1.617)
25. Chen, C.; Bian, L. and Ma, J. (2014) From traces to trajectories: how well can we guess activity locations from mobile phone traces? *Transportation Research Part C* 46, 326-337.
26. Guan*, X.; Chen, C. (2014) Using social media data to understand and assess disasters. *Natural Hazards* 74, 837-850.
27. Chen*, L.; Chen, C. and Ewing, R. (2014) The Relative Effectiveness of Pedestrian Safety Countermeasures at Urban Intersections—Lessons from a New York City Case Study. *Transport Policy* 32, 69-78. <http://dx.doi.org/10.1016/j.tranpol.2013.12.006>
28. Wang*, T.; Chen, C. (2014) Impact of fuel price on vehicle miles traveled (VMT): does the poor respond in the same way as the rich? *Transportation* 41, 91-105. DOI 10.1007/s11116-013-9478-1
29. Shang, C.; Zhou, M. and Chen, C. (2014) Cell phone data and applications. *International Journal of Intelligent Control and Systems*, 19(1), 35-45.
30. Ottosson*, D.; Chen, C.; Wang*, T.; Lin*, H. (2013) The sensitivity of on-street parking demand in response to price changes: a case study in Seattle, WA. *Transport Policy* 25, 222-232.
31. Ewing, R.; L. Chen*; C. Chen. (2013) Quasi-experimental study of Traffic Calming Measures in New York City. *Transportation Research Record* 2364, 29-35.
32. Chen, C.; Neal, D. and Zhou, M. (2013) Understanding the Evolution of a Disaster—A Framework for Assessing Crisis in a System Environment (FACSE). *Natural hazards* 65(1), 407-422.
33. Wang*, T. and Chen, C. (2012) Attitudes, mode switching behavior, and the built environment: a longitudinal study in the Puget Sound region. *Transportation Research Part A* 46, 1594-1607.

34. Chen*, L.; Chen, C.; Ewing, R.; McKnight, C.; Srinivasan, R.; Roe, M. (2012) Safety countermeasures and crash reductions in New York City—Experience and Lessons learned. *Accident, Analysis, and Prevention* 50, 312-322. <http://dx.doi.org/10.1016/j.aap.2012.05.009>.
35. Chen, C. and Lin*, H. (2012) How far do people search for housing? Analyzing the roles of housing supply, intra-household dynamics, and the use of information channels. *Housing Studies* 27(7), 898-914. DOI:10.1080/02673037.2012.725827
36. Chen, C.; Lin*, H.; and Loo, B. (2012) Exploring the impact of safety culture of immigrants on pedestrian and bicycle crashes. *Journal of Urban Health* 89 (1), 138-152, DOI: 10.1007/s11524-011-9629-7.
37. Chen*, L.; Chen, C.; Raghavan, S.; McKnight, C.; Ewing, R.; Roe, M. (2012) Evaluating the safety impacts of bike lanes in New York City. *American Journal of Public Health* 102(6), 1120-1127.
38. Gong, H.; Chen, C.; Bialostozky*, E. and Lawson, C. (2012) A GPS/GIS Method for Travel Mode Detection in New York City. *Computers, Environment, and Urban Systems* 36(2), 131-139.
39. Chen, C. and Lin*, H. (2011) Decomposing Residential Self-selection via a Life Course Perspective. *Environment and Planning A* 43(11), 2608-2625.
40. Chen, C. and Varley*, D. (2011) What affects Transit Ridership? A Dynamic Analysis Involving Multiple Factors, Lags, and Asymmetric Behavior. *Urban Studies*, 48(9), 1893 – 1908, DOI [10.1177/0042098010379280](https://doi.org/10.1177/0042098010379280)
41. Chen, C.; Gong, H.; Lawson, C., and Bialostozky*, E. (2010) Evaluating the Feasibility of a Passive Travel Survey Collection in a Complex Urban Environment: Lessons Learned from the New York City Case Study. *Transportation Research Part A* 44(10), 830-840.
42. Loo, B.; Chen, C., and Chan*, E. (2010) Rail-based Transit-oriented Development: Lessons from New York City and Hong Kong. *Landscape and Urban Planning* 97(3), 202-212.
43. Pendyala, R.; Goulias, K. and Chen, C. (2009) Remembering a Teacher. *Transportation* 36, 643-645. [note: this is a memorial paper for my PhD advisor: Dr. Ryuichi Kitamura]
44. Chen, C.; Chen*, J. and Timmermans, H. (2009) Historical Deposition Influence and its Interaction with Lifecycle in Residential Location Decisions: Development of a GEV Discrete Choice Model for Spatial Correlation. *Environment and Planning A* 41(11) 2760-2777.
45. Chen, C. and Chen*, J. (2009) Diurnal Pattern of Transit Ridership: A Case Study of the New York City Subway System. *Journal of Transport Geography* 19, 176-186.
46. Chen*, J.; Chen, C. and Timmermans, H. (2008) Accessibility Tradeoffs in Residential Location Decisions. *Transportation Research Record* 2077,71-79.
47. Chen, C. and Chen*, J. (2009) What is Responsible for a Response Lag of a Significant Change in Discretionary Time Use: the Built Environment, Family and Social Obligations, Temporal Constraints, or a Psychological Delay Factor? *Transportation* 36, 27-46.
48. Chen, C.; Gong, H.; and Paaswell, R. (2008) Role of the Built Environment on Mode Choice Decisions: Additional Evidence on the Impact of Density. *Transportation* 35(3), 285-299.
49. Lin, J.; Chen, C.; and Niemeier, D. (2008) An Analysis on Long Term Emission Benefits of a Government Vehicle Fleet Replacement Plan In Northern Illinois. *Transportation* 35(2), 219-235.
50. Guo, J. and Chen, C. (2007) The Built Environment and Travel Behavior: Making the Connection. *Transportation* 34(5), 529-533.
51. Gong, H., Japzon*, A. and Chen, C. (2008) Public Libraries and Social Capital in Three New York City Neighborhoods. *Tijdschrift voor Economische en Sociale Geografie (Journal of Economic and Social Geography)* 99(1), 65-83.
52. Wen, H. and Chen, C. (2007) Factors Influencing the Initial Roughness of the Concrete Pavement. *Journal of Performance of Constructed Facilities (ASCE Journal)* 21(6), 459-464.

53. Chen, C. and McKnight, C. (2007). Does the Built Environment Make a Difference? Additional Evidence from the Daily Activity and Travel Behavior of Homemakers Living in NYC and Suburbs. *Journal of Transport Geography* 15(5), 380-395.
54. Chen, C. and Lin, J. (2006) Making an Informed Vehicle Scrappage Decision. *Transport Reviews* 26(6), 731-748.
55. Chen, C. and Chen*, X. (2006) Dynamic Discrete Choice Models with Future Expectation. *The International Journal of Intelligent Controls and Systems* 11(1), 36-50.
56. Chen, C. and Mokhtarian, P. (2006) Tradeoffs between Time Allocations to Maintenance Activities/Travel and Discretionary Activities/Travel. *Transportation* 33, 223-240.
57. Chen, C. and Niemeier, D. A Mass Point Vehicle Scrappage Model (2005) *Transportation Research Part B* 39(5), 401-415.
58. Chen, C. (2005) Feasible Activity and Travel Patterns Using a Discrete Choice Framework. (2005) *Journal of Transportation Research Forum, July*.
59. Chen, C.; Garling, T.; and Kitamura, R. (2004). Activity Rescheduling: Deliberate or Habitual? *Transportation Research Part F* 7(6), 351-371. (IF: 1.635; Google Scholar: 35)
60. Mokhtarian, P. and Chen, C. (2004) TTB or Not TTB, that is the Question: A Review and Analysis of the Empirical Literature on Travel Time (and Money) Budgets. *Transportation Research Part A* 38(9-10), 643-675.
61. Kitamura, R.; Chen, C.; Pendyala, R.; and Narayanan, R. (2000) Micro-simulation of Daily Activity-Travel Patterns for Travel Demand Forecasting. *Transportation* 27(1), 25-51.
62. Chen, C.; Kitamura, R.; and Chen, J. (1999) Multimodal Daily Travel Planner – an Interactive Approach. *Transportation Research Record* 1676, 37-43.
63. Kitamura, R.; Chen, C.; and Narayanan, R. (1998) Traveler Destination Choice Behavior: Effects of Time of Day, Activity Duration, and Home Location. *Transportation Research Record* 1645, 76-81.
64. Beaton, P.; Chen, C.; and Meghdir, H. (1998) Stated Choice: a Study in Predictive Validity Using an Aggregate Truth Set. *Transportation* 25(1), 55-75.
65. Beaton, P.; Chen, C.; and Meghdir, H. (1997) Stated Choice for Transportation Demand Management Models: a Study in Predictive Validity Using a Disaggregate Truth Set. *Transportation Research Record* 1598, 1-8.
66. Kitamura, R.; Chen, C.; Pendyala, R. (1997) Generation of Synthetic Activity-Travel Patterns. *Transportation Research Record* 1607, 154-162.
67. Pendyala, R.; Kitamura, R.; Chen, C.; and Pas, E. (1997) An Activity-based Microsimulation Analysis of Transportation Control Measures. *Transport Policy* 4(3), 183-192.
68. Beaton, P.; Chen, C.; and Meghdir, H. (1996) Stated Choice: a New Tool for Transportation Demand Forecasting. *Institute of Transportation Engineers Journal* January, 26-29.
69. Chen, C.; Beaton, P. and Meghdir, H. (1995) Profile of Employee Transportation Coordinators. *Transportation Research Record* 1496, 123-130.
70. Beaton, P.; Chen, C.; and Meghdir, H. (1995) Stated Choice-based Performance Evaluation of Selected Transportation Control Measures and their Transfer across Sites. *Transportation Research Record* 1496, 168-174.

Preprints

1. Guan, X.; Chen, C.; Ren, I.; Yeung, K.; Hung, L. and Lloyd, Wes (2022) Mobility Analysis Workflow (MAW): An Accessible, Interoperable, and Reproducible Container System for Processing Raw Mobile data. <http://arxiv.org/abs/2204.09125>
2. Shea K, Borchering RK, Probert WJM, Howerton E, Bogich TL, Li S, van Panhuis WG, Viboud C, Aguás R, Belov A, Bhargava SH, Cavany S, Chang JC, Chen C, Chen J, Chen S, Chen Y, Childs LM,

Chow CC, Crooker I, Del Valle SY, España G, Fairchild G, Gerkin RC, Germann TC, Gu Q, Guan X, Guo L, Hart GR, Hladish TJ, Hupert N, Janies D, Kerr CC, Klein DJ, Klein E, Lin G, Manore C, Meyers LA, Mittler J, Mu K, Núñez RC, Oidtman R, Pasco R, Piontti APY, Paul R, Pearson CAB, Perdomo DR, Perkins TA, Pierce K, Pillai AN, Rael RC, Rosenfeld K, Ross CW, Spencer JA, Stoltzfus AB, Toh KB, Vattikuti S, Vespignani A, Wang L, White L, Xu P, Yang Y, Yogurtcu ON, Zhang W, Zhao Y, Zou D, Ferrari M, Pannell D, Tildesley M, Seifarth J, Johnson E, Biggerstaff M, Johansson M, Slayton RB, Levander J, Stazer J, Salerno J, Runge MC. COVID-19 reopening strategies at the county level in the face of uncertainty: Multiple Models for Outbreak Decision Support. medRxiv 2020 Nov 5;2020.11.03.20225409. PMID:33173914

Parts of Books (Chapters in Edited Books)

1. Chen, C. and Susilo, Y. (2021) Trip chaining analysis. Volume 4: Traffic Management, Transport Modeling and Data Management. International Encyclopedia of Transportation. Editor-in-Chief: Roger Vickerman. Elsevier. 606-611.

Journal Issues Edited

1. Chen, C.; Batty, M. and Van Vuren, Tom. (2015) Emerging, Passively-generated Data for Transportation Planning and Travel Behavior Analysis. *Transportation* 42, 537-540. DOI 10.1007/s11116-015-9614-1
2. Guo, J. and Chen, C. (2007) The Built Environment and Travel Behavior: Making the Connection. *Transportation* 34(5), 529-533. DOI 10.1007/s11116-007-9131-y

Patents Submitted and/or Awarded

1. Multi-modal Daily Activity and Travel Planner, 1997, University of California at Davis (with Ryuichi Kitamura)

V. TEACHING

V-I. INDIVIDUAL INSTRUCTION

Former Postdoctoral or PhD Advisees (chair of dissertation committee)

1. Xiangyang Guan [postdoc, 2019-2022]
2. Jae Hyun Lee [postdoc, 2016-2017]
3. Peng Chen [postdoc from 2016-2017]
4. Katherine Idziorek [Ph.D. Urban Planning and Design, 2016-2021]
Dissertation: *Social networks and disaster preparedness at the community level: the role of social ties and social infrastructure in connecting people with essential resources*. June 2021.
Currently, tenure-track assistant professor at the University of North Carolina, Charlotte.
5. Xi Zhu [Ph.D. Civil and Environmental Engineering, 2016-2020]
Dissertation: *Individual preference learning with collaborative learning framework*
6. Xiangyang Guan [Ph.D. Civil and Environmental Engineering, 2013-2018]
Dissertation: *A general methodology for Inferring cascading failures in interdependent networks*
7. Mengling Wang [Ph.D. Civil and Environmental Engineering, 2009-2014]
Dissertation: *Understanding time of day variations in human mobility patterns*
Currently senior data scientist at Facebook
8. Li Chen [Ph.D. Civil Engineering, 2007-2012]
Dissertation: *Multi-level modeling of the effectiveness of traffic calming measures*

Currently, Research Scientist at City College of New York

9. Haiyun Lin [Ph.D. Civil Engineering, 2007-2012]
Dissertation: *Understanding housing search and residential location choices*
Currently senior modeler with Cambridge Systematics
10. Jason Chen [Ph.D. Civil Engineering, 2003-2009]
Dissertation: *Residential relocation choices and the consequent behavioral changes*
Currently, Senior Traffic Modeler at Transurban

Current PhD Advisees

1. Ekin Ugurel, started in 2021
2. Grace Jia, started in 2020
3. Arsalan Esmaeili, started in 2022

Current MS Graduate Advisees (chair of the thesis committee)

1. Jeremy Chan, started in 2023
2. Kaitlyn Ng, started in 2022
3. Kittibhum Tasanasuwan, started in 2022

Former MS Graduate Advisees (chair of the thesis committee)

1. Joanne Lin [MS in transportation engineering, UW, 2020-2022]
2. Cristina Cano-Calhoun [MS in urban design and planning, UW, 2019-2021, co-chair with Dan Abramson of Urban Planning]
3. Ian Ren [MS in Computer Science and Systems, UW Tacoma, 2019-2021]
Thesis: Building reproducible workflows using transportation data and COVID-19 data.
4. Mahsa Sheykholtan [MS in Civil and Environmental Engineering, 2019-2020]
Thesis: The decline of transit ridership and the need to subsidize for sustainability: Los Angeles vs Seattle
5. Xi Zhu [MS in Civil and Environmental Engineering, 2014-2016]
Thesis: The built environment affects non-motorized travel behaviors differently for lower- and higher-income people, Research paper, June, 2016.
6. Xiangyang Guan [MS in Civil and Environmental Engineering, 2011-2013]
Thesis: *Using social media tools to access Sandy-related damages*
7. John Murphy [MS in Urban Planning and Design, 2010-2012]
Thesis: *Under what circumstances is walking a better choice than taking the bus?*
8. Dadi Ottosson [MS in Civil and Environmental Engineering, 2010-2012]
Thesis: *Elasticity of on-street parking demand in response to parking meter increases*
9. Menglin Wang [MS in Civil and Environmental Engineering, 2009-2010]
Thesis: *Attitudes, built environment and travel behavior*
10. Wei Li [MS in Civil Engineering, 2008-2010]
Thesis: *Evolution of measuring accessibility over time*
11. Don Varley [MS in Civil Engineering, 2007-2009]
Thesis: *Disentangling the effects of gasoline price, GDP and population on ridership*
12. Eugene Sit [MS in Civil Engineering, 2006-2008]
Thesis: *Sensitivity analysis the NYMTC BPM model*
13. Haiyun Lin [MS in Civil Engineering, 2005-2007]
Thesis: *Quantifying the cultural effects in collision rates*

Former MS Graduate Advisees (chair of the research paper committee, incomplete list)

1. Yingqian Mei [MS in Civil and Environmental Engineering, 2012-2014]
2. Ran Ju [MS in Civil and Environmental Engineering, 2016-2018]
3. Darwin Li [MS in Civil and Environmental Engineering, 2013-2015]
4. Shan Ma [MS in Civil and Environmental Engineering, 2012-2014]
5. Doug Johnston,[MS in Civil and Environmental Engineering, 2011-2013]
6. Patrick Indorf, [MS in Civil and Environmental Engineering, 2010-2012]
7. Jaemoon Kim, [MS in Civil and Environmental Engineering, 2009-2010]

Other significant student supervision (serving as a committee member, incomplete list)

1. Ameer Hamza Shakur, GSR on PhD dissertation committee (Industrial Systems and Engineering, Dissertation: Learning rule-based decision-making systems for heterogeneous longitudinal survival data. Advisor: Shuai Huang, December 2022 (expected).
2. Jingshuo Feng, GSR on PhD dissertation committee (Industrial Systems and Engineering), Dissertation: Modeling heterogeneous user behavior in interactive systems by graphical model and collaborative learning framework. Advisor: Shuai Huang, Spring 2021.
3. Yize Chen, PhD dissertation committee (Electrical and Computer Science Committee), Dissertation: *Bridging machine learning to power system operation and control*, Advisor: Basosen Zhang, Spring 2021.
4. Yan, An, PhD dissertation committee (Information School), Dissertation: Mobility and Equity (tentative), Advisor: Bill Howe, Spring 2021.
5. Yanbo Ge, PhD dissertation committee (Civil and Environmental Engineering, TBD, (Advisor, Don MacKenzie), Spring 2018.
6. Eric Howard, PhD dissertation committee (interdisciplinary program in urban planning), *TBD*, (Advisor: Anne Moudon), Spring 2016 (expected)
7. Peng Chen, PhD dissertation committee (Interdisciplinary program in urban planning), Dissertation: *Impact of the built environment on bicycle collisions*, (Advisor: Qing Shen), Spring 2016.
8. Erica Wygonik, PhD dissertation committee (Civil and Environmental Engineering), Dissertation: *Moving goods to consumers: land use patterns, logistics, and emissions*, (Advisor: Anne Goodchild), Spring 2014.
9. Yunteng Lao, PhD dissertation committee (Civil and Environmental Engineering), Dissertation: *Modeling animal-vehicle crashes*, (Advisor: Yinhai Wang), Spring 2013
10. Yan Tan, PhD dissertation committee (Computer Science and Engineering, New Jersey Institute of Technology), Dissertation: *On-road localization and data dissemination in vehicular ad-hoc networks*, (Advisor: Grace Wang), Spring 2013
11. Huimin Xiong, PhD dissertation committee (Industrial Engineering), Dissertation: *Quantifying drivers' use of in-vehicle systems: implications for long-term behaviors*, (Advisor: Linda Boyle), Spring 2013
12. Yuwing Wu, M.S. Thesis committee (Industrial Engineering), MS Thesis: *Drivers' perception, trust, and use of Adaptive Cruise Control (ACC)*, (Advisor: Linda Boyle), Spring 2012
13. Jarrett Bato, M.S. Thesis committee (Industrial Engineering), MS Thesis: *Adaptive cruise control (ACC) driver characteristics: usability and safety perception while using ACC*, (Advisor: Linda Boyle), Spring 2012
14. Yiyun Peng, M.S. Thesis committee (Industrial Engineering), MS Thesis: *Drivers' lane keeping ability when driving inattentively: insights from a naturalistic study*, (Advisor: Linda Boyle), Spring 2010

15. Hon Ting Cheng, M.S. Thesis committee (Geography, University of Hong Kong), MS Thesis: *Economic and land use effects of rail stations*, (Advisor: Becky Loo), Spring 2011
16. Yao-Jan Wu, Ph.D dissertation committee (Civil and Environmental Engineering), Dissertation: *Traffic sensor data-based arterial performance measurement: methodology and online implementation*, (Advisor: Yin Hai Wang), Spring 2011
17. Pyung Ho Kim, Ph.D dissertation committee (Geography), Dissertation: *Multi-modal network for accessibility analysis*, (Advisor: Hongmian Gong), Spring 2011
18. Nebahat Noya, Ph.D dissertation committee (Civil and Environmental Engineering, Rutgers University), Dissertation: *Developing the risk map of highway accidents*, (Advisor: Kaan Ozbay), Spring 2006

Former and Current Undergraduate Researchers, REU students

Emily Ko | Matt Bloch | Chris Lin | Tanya Rodriguez Michelle Kwan | Ahmed AlYami

V-II. CLASSROOM INSTRUCTION

Courses taught at University of Washington

Course	Quarter & Year Taught	Instructor Ranking ¹	
		“Instructor’s effectiveness in teaching the course”	“Instructor’s contribution to the course”
CET512 (<i>Transportation data collection</i>)	WI23	4.8	4.8
	WI22	4.0	4.8
	WI21	4.2	4.4
	WI20	3.5	3.4
	SP11	4.8	4.0
	SP10	3.8	4.0
CET581 (<i>Travel demand forecasting</i>)	AU20	4.0	4.5
	SP17	3.7	4.1
	AU14	2.6	3.0
	AU13	3.0	3.8
	SP13	3.8	3.8
	WI11	3.8	4.0
CEE415 (<i>Machine learning for civil engineers</i>)	WI10	2.7	3.3
	SP22	2.8	2.7
CEE416/580 (<i>Urban transportation planning</i>)	SP20	3.8 ²	4.4
	AU17	3.8	3.6
	AU16	3.8	3.6
	AU14	2.9	3.2
	AU13	3.4	3.8
	AU12	3.4	3.4
AU11	2.4	2.7	

¹0-5 scale

² for spring 2020 (the first whole quarter UW went fully online due to COVID), “instructor’s effectiveness in teaching the course” was replaced with “the effectiveness of the distance learning format”.

VI. PROFESSIONAL SERVICE

Departmental and University Contributions

At University of Washington

2022-2024	Member, UW COE P&T committee
2022-2024	Interim chair, Industrial & Systems Engineering
2022	Chair, ChemE chair review committee
2021	Chair, COE faculty cluster hire review committee
2020-2021	Member, UW COE Distinctive Research Agenda Subcommittee
2020	Member, UW COE cluster hire faculty review committee
2020-present	Member, UW COE college council
2021	Member, CEE diversity and resilience faculty search committee (filled)
2020-2021	Member, CEE JEDI committee
2014-2015	Chair, Transportation faculty search committee (hired Dr. Jeff Ban)
2013-2016	Member, Faculty affairs committee
2012-2013	Member, Transportation faculty search committee (filled)
2009-2010	Chair, Search Committee for Sustainable Infrastructure Faculty Line (unfilled)
2009-2012/3	Member, Graduate Students Admission Committee
2010-2012/3	Member, Undergraduate Students Admissions Committee

At City College of New York

2008-2009	Member, Scholarship Committee
2008-2009	Member, Alumni Homecoming Committee
2009-2009	Member, ABET Committee
2003-2009	Member, PhD Committee
2006-2009	Member, Curriculum Committee
2007-2009	Member, Committee for Journal of Student Research (college level)
2007-2009	CEE representative, Grove School of Engineering Open House
2007	Chair, Search Committee for Transportation Network Faculty Line (filled)
2006	Member, Search Committee for Pavement Faculty Line (unfilled)
2005	Faculty Advisor, LSAMP Program
2004-2009	Advisor, CEE Senior Design Capstone Class

Editorial Activities

Associate editor, Transportation science (INFORMS), 2021-present
Associate editor, Service Science (INFORMS), 2020-present
Advisory council member, INFORMS Service Science Section, 2022-2024
Editorial board, Sustainability Analytics and Modeling, 2021-present
Associate editor, Transportation (journal), 2015-2020
Guest editor, Transportation, special issue on “emerging, passively generated datasets for travel behavior and policy analysis”, 2013-2015
Guest editor, Transportation, special issue on “travel behavior and the built environment”, 2008
Associate editor, Travel Behavior and Society (Elsevier), 2013-2016

Journal referee, Transportation Research Part A, Part B, Part C, Part D, and Part E, Transportation, PNAS, Nature Human Behavior, Environment and Planning A, Computers, Environment and Urban Systems, International Journal of Geographical Information Science, American Journal of Public Health, Transportation Research Record, Urban Studies, Journal of Transport

Geography, IEEE Transactions, Journal of Choice Modeling, Transportation Letters, Transportmetrica, Professional Geographer, PLOS, Scientific Reports, Travel Behavior and Society, Journal of the Royal Society Interface

Scientific Committee Activities

2022-present	Member, International scientific committee, International Symposium on Transport Network Resiliency
2016-present	Member, Committee on Transportation Network Modeling (ADB30), Transportation Research Board
2014-present	Member, Committee on Travel Survey Methods (ABJ40), Transportation Research Board
2004-2014	Chair, subcommittee on Time Use and Activity and Travel Patterns
2004-2014	Member, Committee on Travel Behavior and Values (ADB10), Transportation Research Board
2004-2013	Member, Committee on Telecommunications and Travel Behavior (ADB20), Transportation Research Board

Scientific Reviews and Panels

Served as a panelist on numerous panels for NSF, NIH, EPA, USDOT etc.

Scientific Advisory Work

May 2021	Inter-agency Exchange on Transit Ridership Projections for COVID Recovery
May 2014	Expert Panel on SCAG's activity-based model system
2012-2014	Advisory Committee on Road User Charge in the State of Washington
2012-2013	Advisory Committee on Tolling and Traffic Management for City of Seattle
2010-2011	WSDOT aviation advisory board (on Aviation Economic Impact Study)
2004-2007	Board of Directors, Chinese American Transportation Association, New York Chapter
2008-2009	Advisory Committee for UTC Projects, University of Delaware

Workshops

2023	Panelist, Panel discussion for Service and Tenure Preparation, ASCE T&DI and CUTC (Council of University Transportation Center), moderated by Chandra Bhat, June 14 th .
2022	Panelist, Panel discussion for Young Transportation Faculty Members, ASCE T&DI and CUTC (Council of University Transportation Center), moderated by Chandra Bhat, May 31 st . Other panelists include: Chris Hendrickson, Sue McNeil, Ram Pendyala, and Ilgin Guler.

Session Chair and Meeting Organization (incomplete list)

2018-2020	Conference chair, ITM2020 (Innovations in Travel Modeling), Seattle
2018-2019	Organizing committee, Active Transportation Conference in December 2019, DC
2014	Session chair, 93 rd Annual Meeting of the Transportation Research Board, Washington, D.C.
2013	Session chair, 92 nd Annual Meeting of the Transportation Research Board, Washington, D.C.
2013	Member of the organizing committee on the Bicycle Urbanism conference at the UW (June, 2013)

2012	Session chair, 91 st Annual Meeting of the Transportation Research Board, Washington, D.C.
2011	Chair, Session 730: Shopping, Socializing, and Satisfaction: Role of Information and Communication Technology and Transport, 90 th Annual Meeting of Transportation Research Board
2011	Chair, Session 591: Nonwork Travel Behavior, 90 th Annual Meeting of Transportation Research Board
2010	Expert Panel for SCAG (Southern California Association of Governments) Travel Demand Model Development
3/2009	Session Chair, Annual Meeting of American Association of Geographers
4/2009	Invited Panelist, Annual Meeting of American Planning Association
1/2008	Organizing Committee, Session on Social Networks, 87 th Annual Meeting of Transportation Research Board
1/2008	Chair, Session 784: Decision Processes that Give Rise to Activity-Travel Patterns, 87 th Annual Meeting of Transportation Research Board
11/2008	Chair and Discussant, Session 94: Housing Markets IV: Policy, North America Regional Science Meeting
1/2007	Chair, Session 747: Variability and Dynamics of Traveler Behavior, 86 th Annual Meeting of Transportation Research Board.
10/2007	Panelist, Congestion Pricing, CUNY Forum
2005-2007	Session Chair, Innovative Transportation Projects and Planning, International Chinese Transportation Professionals' Association (ICTPA), Flushing, New York
1/2006	Chair, Session 670: Advances in Activity and Time Use Pattern Analysis, 85 th Annual Meeting of Transportation Research Board
5/2006	Session Chair, Pedestrian Safety Initiatives for Asian Americans. Conference on Well-Beings of Asian Americans, Baruch College
2005-present	Panelist, National Science Foundation
1/2005	Chair, Session 811: Time Use and Travel Time Expenditures: New Insights, 84 th Annual Meeting of Transportation Research Board

VII. RESEARCH FUNDING AS PI OR CO-PI SINCE 2003

As PI of the Entire Project

Funding Agency	Title	Total Amount (in K)	Your Amount (in K)	Your Role	Dates (start-finish)
NSF	SCC-IRG Track 1: Socially-integrated robust communication and information-resource sharing technologies for post-disaster community self reliance	\$2,000	\$2,000	PI	10/2023-9/2027
NSF	LEAP-HI: Re-engineering for adaptable lives and businesses	\$2,000	\$2,000	PI	11/2021-10/2025

NSF	A whole-community effort to understand biases and uncertainties in using emerging big data for mobility analysis	\$730	\$550	PI	9/2021-8/2024
NSF	FW-HTF-P: Designing a market-based optimization tool for the future of work: balancing remote work and community vitality in post-COVID American cities	\$150	\$80	PI	1/2022-12/2022
UW GIF	Building capacity for enhancing community resilience	\$16	\$16	PI	1/2021-1/2022
NSF	RAPID: modeling and learning-based design for social distancing policies for COVID-19	\$200	\$100	PI	06/2020-5/31/2022
NSF	JST: SCC-PG: Socially-integrated technological solutions for real-time response and neighborhood survival after extreme events	\$95	\$95	PI	6/1/2020 - 5/31/2022
FACEBOOK	Crisis Informatics for Hurricane Harvey	\$50	\$50	PI	10/2018-12/2019
USDOT	Understanding GPS and mobile phone data for origin-destination analysis	\$200	\$100	PI	5/2017-10/2017
NSF	Inferring failure propagation patterns from post-disaster disruptions data	\$285	\$285	PI (single PI grant)	9/1/2015 - 8/31/2018
NIH	3-population 3-scale social network model to assess disease transmission	\$2,662	\$1,106	PI	3/2015-2/2022
Sweden Vinnova	From individual travel behaviors to transmission of infectious diseases	\$5.4	\$5.4	PI	2/2015-3/2015
NSF	Using cell phone data to analyze the continuum and life cycle of disaster in spatio-temporal movements	\$499	\$240	PI	9/2012-8/2015
PACTRANS	An innovative survey to understand sustainable travel behaviors	\$240	\$160	PI	5/2012-10/2013

TRANSNOW	Residential location choices	\$52	\$52	PI	7/10-6/11
NYCDOT	Effectiveness of Traffic Calming Measures	\$350	\$350	PI	11/08-6/11
U.S. DOT	Development of a State of the Art Residential Location Model	\$50	\$50	PI	01/08-12/09
CUNY-Collaborative	Feasibility of a Passive GPS-based Travel Survey in NYC	\$70	\$70	PI	07/08-12/09
PSC-CUNY	Locational Analysis of Pedestrian Crashes	\$3.9	\$3.9	PI	07/08-06/09
U.S. DOT and NYSDOT	Evaluation and Testing of Regional Land Use and Transp. Model	\$250	\$250	PI	04/06-06/09
NYMTC	Improvements on NYMTC Data Products	\$27	\$27	PI	01/08-06/09
NYMTC	GPS Pilot Project	\$45	\$45	PI	07/07-12/08
UTRC	Temporal and Social Dimensions of Social Accessibility	\$5.4	\$5.4	PI	01/07-06/08
PSC-CUNY	Role of Built Environment in People's Mode Choice Decisions	\$3.6	\$3.6	PI	07/06-06/07
USDOT	Public Transit in New York City	\$50	\$50	PI	07/05-12/06
PSC-CUNY	Development of a Dynamic Model for Residential Relocation Choice	\$4	\$4	PI	07/05-12/06

As co-PI of the entire project or PI of the UW team

Funding Agency	Title	Total Amount (in K)	Your Amount (in K)	Your Role	Dates (start-finish)
USDOT	National Center for Understanding Future Travel Behavior and Demand	\$20,000	\$2,000	UW PI	1/2023-12/2027
NSF	SCC-PG: building capacity for data-driven physical activity interventions in communities with depression and obesity hotspots	\$150	\$25	Co-PI (PI: Andrea Hartzler)	10/1/2020-9/31/2022
USDOT	Promises of data from emerging technologies for	\$250	\$125	Co-PI (PI: Jeff Ban)	1/2021-12/2023

	transportation applications: Puget Sound Region Case Study (Phase III)				
USDOT (RITA)	TOMNET Tier 1 Center	\$7,067	\$1,320 (new funding in the amount of \$220k in 2020)	UW PI (center PI: Ram Pendyala, ASU)	11/2016-11/2023
USDOT	Promises of data from emerging technologies for transportation applications: Puget Sound Region Case Study (Phase II)	\$250	\$125	Co-PI (PI: Jeff Ban)	1/2019-12/2020
USDOT	Promises of data from emerging technologies for transportation applications: PSRC case study	\$200	\$100	Co-PI (PI: Jeff Ban)	1/2018-12/2018
Bullitt Foundation	Building community adaptive capacity-a holistic approach to improving resilience	\$100	\$50	Co-PI (PI: Dan Abramson)	10/2018-10/2019
DOE TRANSNET	The connected traveler: a framework to reduce energy use in transportation	\$1,500	\$335	Co-PI (PI: Young, NREL)	4/2016-10/2018
PacTrans	PacTrans education grant	\$150	\$25	Co-PI, PI: (Kevin Chang)	1/2016-12/2016
PacTrans	PacTrans education grant	\$320	\$64	Co-PI, PI: (Kevin Chang)	1/2015-12/2016
PacTrans	PacTrans Education Grant	\$160	\$32	Co-PI, PI: (Kevin Chang)	1/2015-6/2016
NYSDOT	Vehicle Impact Assessment	\$230	\$120	Co-PI, PI: (Anil Agrawal)	0/08-06/10
U.S. DOT	Advanced Applications of Person-based GPS in an Urban Environment	\$50	\$19	Co-PI, PI: (Katie Lawson)	01/09-12/09

NSF	Impacts of Extreme Events on Intercity Passenger Travel Behavior: The World Trade Center Experience	\$60	\$50	Co-PI, PI: Jose Holguin-Veras	04/03-3/04
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VIII. PRESENTATIONS

VIII-I. INVITED PRESENTATIONS

1. Taipei, Taiwan, Multi-task, multi-kernel learning for location-based service (LBS) data, APSIPA (Asia-Pacific Signal and Information Processing Association), November 2nd, 2023.
2. Boston, MA, Fusing multiple, biased datasets to recover missing trips: a behaviorally-informed likelihood-based approach, Northeastern University, November 27th, 2023.
3. New York, NY, Learning big and small, heterogenous datasets for transportation planning resilience analyses, New York University, May 16th, 2023.
4. Virtual, Learning big and small, heterogenous datasets for transportation planning resilience analyses, Drexel University, January 17th, 2023.
5. Gainesville, FL. Learning big and small, heterogenous datasets for transportation planning resilience analyses. Female Leaders in Transportation Distinguished Seminar Series, University of Florida Transportation Center, December 1st, 2022.
6. Virtual. Deriving mobility patterns from big data: promises, limitations, and mitigation strategies. NextGen NHTS Technical Advisory Committee, Atlanta, GA, July 12th, 2022.
7. Virtual. Roles of data analytics and operations research in creating an adaptable city. Service Conference, Shenzhen, July 2nd, 2022.
8. Seattle, WA. A general methodology to infer failure propagations across interdependent networks. Industrial and Systems Engineering, University of Washington. March 1st, 2022.
9. Virtual. Presenter and discussant. Symposium on human dynamics research: human dynamics in a post-pandemic area. Annual Meeting of American Association of Geographers. Seattle, WA. April 10th 2021.
10. Virtual. Discussant. Panel on behavioral dynamics – the future... accelerated. Zephyr foundation, <https://zephyrtransport.org/events/2020-12-15-panel-behavior-dynamics/>. December 15 2020.
11. Virtual. Machine learning in transportation: learning mobility patterns from big data Responsible machine learning summit, USCB Center for Responsible Machine Learning. October 9th 2020.
12. Virtual. Lunch with National Science Program Directors, Natural Hazards Center annual workshop, July 16, 2020, moderator for a session with four NSF program directors.
13. Seattle, WA. NSF Career Program. University of Washington, College of Engineering, May 1st, 2020.
14. Irvine, CA. Emerging big data for transportation applications and beyond: opportunities and challenges. Institute of Transportation Studies, University of California, Irvine. December 6, 2019.
15. Menlo Park, CA. Toward real time prediction of evacuation behaviors. FACEBOOK headquarter, October 25, 2019.
16. Davis, CA. Promises of emerging data for transportation applications. Institute of Transportation Studies, University of California, Davis, October 11 2019.
17. College Park, MD. Promises of emerging data for transportation applications. University of Maryland, June 6 2019.
18. Charlottesville, VA. General Methodology for Inferring Cascading Processes. School of Engineering and Applied Science, University of Virginia, April 12.

19. Boston, MA, A Universal Methodology for Learning Cascading Failure Dynamics in Complex Systems, 2018 International Conference on Complex Systems Workshop on Network Cascades: Unfolding, Modeling and Control. July.
20. Hong Kong, Emerging Research in Infrastructure Systems in the United States. Hong Kong Polytechnic University, June 19, 2018.
21. Milwaukee, WI, American Control Conference. Controls in Civil Infrastructure Systems. June 27-29, 2018.
22. Bethesda, MD, NIH MIDAS PI Conference. *Big Data, Mobility Patterns and Modeling of Influenza Spreading*, April 5, 2018.
23. Tempe, AZ. School of Sustainable Engineering and the Built Environment (SSEBE) distinguished lecture series. *Civil Infrastructure Systems (CIS): Past, Present and Future Perspectives*. Arizona State University, October, 2017.
24. Evanston, IL. Northwestern University Transportation Center, Northwestern University. *Universal methodology for inferring failure propagation patterns*, November, 2017.
25. Tokyo, Japan, Tokyo Institute of Technology, Tracking the evolution of infrastructure systems and mass responses using publically available data. March 6, 2017
26. Atlanta, GA, National Center for Transportation Productivity and Management (NCTSPM), Georgia Institute of Technology. *From warnings to awareness and actions: understanding resilience through the lens of human activity*, April 2016.
27. Shanghai, China, Tongji University. *Human mobility analysis, infrastructure analysis, and resilience*. November 2015.
28. Hangzhou, China, Zhejiang University. *Human mobility analysis, infrastructure analysis, and resilience*. October 2015.
29. Chengdu, China, Southwest Jiaotong University. *Human mobility analysis, infrastructure analysis, and resilience*. October 2015.
30. Beijing, China, Beihang University. *From traces to trajectories: how well can we guess activity locations from anonymous mobile phone data?* October 2015.
31. Los Angeles, CA, Institute for Pure and Applied Mathematics, University of California, Los Angeles. *Using transportation and emerging datasets to understand resiliency*, October 2015.
32. Los Angeles, CA, Institute for Pure and Applied Mathematics, University of California, Los Angeles. *At least 3 decades' research in travel behavior analysis and how big data can help advance fundamental research in transportation planning*, September 9-10, 2015.
33. Rockville, MD, National Cancer Institute, *Network Problems: Incompleteness, propagation patterns, biases and uncertainties*, March 4, 2015.
34. Stockholm, Sweden, KTH Royal Institute of Technology (Kungliga Tekniska Högskolan), *Using emerging and alternative datasets to for rapid real-time disaster impact assessment and quantification of resilience*, February 10, 2015.
35. Seattle, WA, Interdisciplinary Program in Urban Planning and Design, *Using alternative and emerging datasets to quantify disaster impacts at a fine spatial and temporal level*, October 21, 2014
36. Washington, D.C., Federal Highway Administration, *Using cell phone data for travel behavior analysis*, February 12, 2014.
37. Corvallis, OR, Oregon State University (OSU), *Using social media to understand and assess disasters*, December 2013.
38. Seattle, WA, Center for Statistics and Social Sciences, University of Washington, *From sightings to trajectories: how well can we guess activity locations from mobile phone sightings*, October 23rd, 2013.
39. Baltimore, MD, National Institute of Health (NIGMS), *Three-Population Two-Scale Model to Simulate*

- Transmission of Communicable Diseases*, January 23, 2012 (with L. Bian).
40. Seattle, WA, Pacific Northwest National Laboratory, *Assessment and Prediction Framework for Crisis in Multi-scale Systems*, June 21, 2011.
 41. Seattle, WA, Puget Sound Regional Council, *Combining GPS/GIS/Internet/Mobile technologies to understand people's travel*, June 17, 2011.
 42. College Park, MD, University of Maryland, *Vehicle Miles Traveled, Gasoline Price, and Fuel Efficiency*. June 8, 2011.
 43. Seattle, Washington, Puget Sound Regional Council, PSRC MUG Meeting, *What Affects Transit Ridership? Gasoline Price, Transit Fare, or Others?* June 16, 2010.
 44. Portland, Oregon, Portland State University, PSU Friday Transportation Seminar Series, *Residential Location Choice—a Search in the Mirror of the Past*, June 4, 2010.
 45. Kyoto, Japan, Kyoto University, Ryuichi Kitamura Memorial, *Residential Location Choice—a Search in the Mirror of the Past*, April 24, 2010.
 46. Niagara Falls, Canada, Frontiers in Transportation Workshop, *Social Networks in Residential Search Process*, Summer 2009
 47. Minneapolis, Minnesota, American Planning Association, *A Paradigm Shift in Transportation Planning – Revising Transportation Planning Process with Special Populations in Mind*, April 28, 2009.
 48. Minneapolis, Minnesota, University of Minnesota, *Historical Deposition Effect in Residential Relocation Choices*, April 27, 2009.
 49. Evanston, Illinois, Northwestern University, *Residential Location Choice in a Relocation Context*, July 2008.
 50. New York, New York, City College of New York, Psychology Department Seminar Series, *Travel Behavior Analysis – Where to Go?* November 2007.
 51. Shanghai, P.R. China, Tong Ji University, *An Overview of the Urban Transportation Planning Process in the U.S.*, August 20-23, 2006.
 52. New Brunswick, New Jersey, Rutgers University, *Time Allocations to Activities and Travel*, November, 2003.
 53. Los Alamos, New Mexico, Los Alamos National Laboratory, *A Transactional Approach to Activity Rescheduling*, April 16, 1998.

VIII-II. CONTRIBUTED PRESENTATIONS

Conference Proceedings and Presentations (fully-referred papers)

1. Ugurel*, E.; Huang, S.; and Chen, C. (2023) Multi-task, multi-kernel learning for location-based service (LBS) data, APSIPA (Asia-Pacific Signal and Information Processing Association), Taipei, Taiwan.
2. Guan*, X.; Wang, Y.; Ugurel, E.; Chen, C.; Wang, R. and Huang, S. (2023) Substitution patterns revealed from people's visit patterns to downtown and other urban cores from pre- to during-COVID-19. *102nd annual meeting of Transportation Research Board, Washington DC*.
3. Jia*, G.; Pendyala, R.; and Chen, C. (2023) Quantifying delivery service induced competition-complementary food accessibility: a modified two-step floating catchment area method. *102nd annual meeting of Transportation Research Board, Washington DC*.
4. Ugurel*, E.; Guan, X.; Wang, Y.; Huang, S.; and Chen, C. (2023) Correcting missingness in passively generated mobile data with a multi-task Gaussian Process regression model. *102nd annual meeting of Transportation Research Board, Washington DC*.
5. Dirks, A.; Batur, I.; Mondal, A.; Magassy, T.; Pendyala, R.; Haddad, A.; Bhat, C.; Chen, C.; Salon, D.; Bhagat-Conway, M.; and Mohammadi, M.; Chauhan, R.; Mohammadian, K.; and Derrible, S.

- (2023) Access to food in a severe prolonged disruption: the case of grocery and meal shopping during the COVID-19 pandemic. *102nd annual meeting of Transportation Research Board, Washington DC.*
6. Batur, I.; Dirks, A.; Mondal, A.; Pendyala, R.; Bhat, Polzin, S.; and C.; Chen (2023) An analysis of changes in time use and activity participation in response to the COVID-2019 pandemic in the United States: implications for well-being. *102nd annual meeting of Transportation Research Board, Washington DC.*
 7. Guan*, X. and Chen, C. (2022) Bayesian estimation of origin-destination trips using multiple biased datasets in the presence of heterogeneity and model uncertainty. *101st annual meeting of the Transportation Research Board, Washington DC.*
 8. Guan*, X. and Chen, C. (2022) Building and testing accessible, interoperable, reproducible and reusable mobility analysis workflows with big data from mobile devices. *101st annual meeting of the Transportation Research Board, Washington DC.*
 9. Lin*, J.; Chen, C.; and Angah, O. (2022) Socioeconomic and spatial disparity of bus ridership impacts in King County, Washington during COVID-19. *101st annual meeting of the Transportation Research Board, Washington DC.*
 10. Wang, J.; Zhang, Y.; Chen, C. and Ban, J. (2021) Travelers' adaptive behaviors in response to Seattle's Alaskan Way Viaduct Replacement Project. *100th annual meeting of the Transportation Research Board, Washington DC.*
 11. Chen, C. and Huang, S. (2021) Correcting self-selection biases in mobile sensor data for OD estimation: a likelihood-based method leveraging multiple biased data sources. *100th annual meeting of the Transportation Research Board, Washington DC.*
 12. Chen, C. and Ban, J. (2021) Using mobile sensor data for evaluation mobility pattern changes from before to after an event: lessons learned from the Seattle Alaskan Viaduct Replacement project. *100th annual meeting of the Transportation Research Board, Washington DC.*
 13. Idziorek*, K.; Chen, C.; and Abramson, D. (2021) Anticipated willingness to share resources in a disaster scenario: the role of attitudinal variables. *100th annual meeting of the Transportation Research Board, Washington DC.*
 14. Zhu*, X.; Feng, J.; Huang, S. and Chen, C. (2020) An online updating method for preference learning. *99th annual meeting of the Transportation Research Board, Washington DC.*
 15. Wang*, F. and Chen, C. (2020) A framework for leveraging emerging data to understand impacts of abnormal events on collective and individual travel patterns. *99th annual meeting of the Transportation Research Board, Washington DC.*
 16. Idziorek*, K.; Chen, C. and Abramson, D. (2020) Integrating social factors into transportation-focused disaster preparedness research. *99th annual meeting of the Transportation Research Board, Washington DC.*
 17. Wang*, F.; Wang, J.; Chen, C.; and Ban, J. (2019) Extracting trips from multi-sourced data for individual mobility and travel pattern analysis: an app-based data example. *98th Annual Meeting of the Transportation Research Board, Washington, D.C., 2019.*
 18. Zhu*, X.; Wang, F.; Chen, C.; and Reed, D. (2019) Personalized information communication to trigger travel choice changes. *98th Annual Meeting of the Transportation Research Board, Washington, D.C., 2019.*
 19. Wang, J.; Wang*, F.; Ban, J.; and Chen, C. (2019) Comparative analysis of big and small data for deriving human mobility patterns. *98th Annual Meeting of the Transportation Research Board, Washington, D.C., 2019.*

20. Idziorek*, K. and Chen, C. (2019) How do social networks and resource sharing contribute to community adaptive capacity? 98th Annual Meeting of the Transportation Research Board, Washington, D.C., 2019.
21. Zhu*, X.; Wang*, F. and Chen, C. (2018) Personalized controls to promote sustainable travel behaviors. 15th IFAC Symposium on Control in Transportation Systems. Savona, Italy, June 6-8 2018.
22. Guan*, X. and Chen, C. (2018) Inferring the Failure Propagation Dynamics in Interdependent Infrastructure Networks: A Backward Approach, 97th Annual Meeting of the Transportation Research Board, Washington, D.C., 2018.
23. Wang*, F. and Chen, C. (2018) Passively Generated Cell Phone Data: Data Issues and Processing Required, 97th Annual Meeting of the Transportation Research Board, Washington, D.C., 2018.
24. Ban, J. and Chen, C. (2018) Promises of big data for transportation planning applications. 97th Annual Meeting of the Transportation Research Board, Washington, D.C., 2018.
25. Guan*, X. and Chen, C. (2017) From Warnings to Awareness and Actions: Insights from Hurricane Sandy. 96th Annual Meeting of the Transportation Research Board, Washington, D.C., 2017.
26. Yan, P. and Chen, C. (2017) Stable Matching and Price of Stability in Real-time Ridership Systems. 96th Annual Meeting of the Transportation Research Board, Washington, D.C., 2017.
27. Liao, C.; Chen, C.; and Fan, Y. (2017) Review of State of the Art Smartphone Apps for Travel Data collection and Energy-efficient Strategies. 96th Annual Meeting of the Transportation Research Board, Washington, D.C., 2017.
28. Zhu*, X. and Chen, C. (2016) Does the Built Environment Affect Nonmotorized Travel Behaviors Differently for Lower- and Higher-Income People? 95th Annual Meeting of the Transportation Research Board, Washington, D.C., 2016. <https://trid.trb.org/view.aspx?id=1393179>
29. Liu*, H.; Chen, C. and Fan, Y. (2016) Apps and Battery Efficient Technologies for Smartphone-Based Travel Data Collection-State of the Art. 95th Annual Meeting of the Transportation Research Board, Washington, D.C., 2016. <https://trid.trb.org/view.aspx?id=1394313>
30. Wang*, M.; Chen, C. and Ma, J. On making more efficient location predictions. 94th Annual Meeting of the Transportation Research Board, Washington, D.C., 2015.
31. Wang*, M.; Chen, C. and Ma, J. Time of day dependence of location variability: application of passively generated mobile phone dataset. 94th Annual Meeting of the Transportation Research Board, Washington, D.C., 2015.
32. Guan*, X. and Chen, C. Using social media data to understand and assess disaster. 93rd Annual Meeting of the Transportation Research Board, Washington, D.C., 2014.
33. Chen, C.; Mei*, Y. and Liu, Y. Does distance still matter in facilitating social ties? Roles of mobility patterns and the built environment. 93rd Annual Meeting of the Transportation Research Board, Washington, D.C., 2014.
34. Wang*, T. and Chen, C. Mobile phone data as an alternative data source for travel behavior studies. 93rd Annual Meeting of the Transportation Research Board, Washington, D.C., 2014.
35. Ewing, R.; Chen*, L., Chen, C. Quasi-experimental study of traffic calming measures in New York City. 92nd Annual Meeting of the Transportation Research Board, Washington, D.C., 2013.
36. Ottosson*, D.; Lin*, H.; and Chen, C. Price Elasticity of On-street Parking Demand: Case Study from Seattle, Washington. 91st Annual Meeting of the Transportation Research Board, Session 768, Washington, D.C., 2012.
37. Chen*, L.; Chen, C.; and Ewing, R. Left-turn Phase: Permissive, Protected, or Both? 91st Annual Meeting of the Transportation Research Board, Session 768, Washington, D.C., 2012.
38. Chen*, L.; Chen, C.; and Ewing, R. Relative Effectiveness of Pedestrian Safety Countermeasures at Urban Intersections: Lessons from New York City Experience. 91st Annual Meeting of the

- Transportation Research Board, Session 768, Washington, D.C., 2012.
39. Wang*, T. and Chen, C. Understanding Changes in Vehicle Miles Traveled in Response to Fuel Price and Fuel Efficiency for Different Income Groups. 91st Annual Meeting of the Transportation Research Board, Session 768, Washington, D.C., 2012.
 40. Chen, C. and Lin*, H. Intrahousehold Dynamics and Sequential Moves in Housing Search Process. 90th Annual Meeting of the Transportation Research Board, Session 768, Washington, D.C., 2011.
 41. Wang*, T. and Chen, C. Attitude, Built Environment, and Mode-switching Behavior. 90th Annual Meeting of the Transportation Research Board, Session 759, Washington, D.C., 2011.
 42. Chen, C. and Lin*, H. Decomposing Residential Self-Selection via a Life Course Perspective. 90th Annual Meeting of the Transportation Research Board, Session 670, Washington, D.C., 2011.
 43. Lin*, H., Chen, C. and McKnight, C. Exploring Impacts of Safety Culture on Immigrants' Vulnerability in Nonmotorized Crashes: A Cross Sectional Study. 90th Annual Meeting of the Transportation Research Board, Session 392, Washington, D.C., 2011.
 44. Chen, C. and Kenyon, S. Which Methods? Which Question! 90th Annual Meeting of the Transportation Research Board, Session 185, Washington, D.C., 2011.
 45. Zhang, J.; You, S.; Chen*, L. and Chen, C. Segment-type Geocoding of Traffic Data in New York City: Preliminary Results. 1st International Conference on Computing for Geospatial Research and Application, June 21-23 2010, Washington, D.C.
 46. Varley*, D. and Chen, C. If you Build it, They will Come? Dynamic Analysis of Factors Affecting Transit Ridership in New York City Region. 89th Annual Meeting of Transportation Research Board, January 10-14, 2010, Washington, D.C.
 47. Chen, C.; Gong, H.; Lawson, C. and Bialostozky, E. Evaluating the Feasibility of Passive Travel Survey Collection in Complex Urban Environment: Case Study in New York City. 89th Annual Meeting of Transportation Research Board, January 10-14, 2010, Washington, D.C.
 48. Chen, C.; Chen*, J. and Timmermans, H. Historical Deposition and its Interaction with Lifecycle Effect: A GEV Model for Residential Location Choice. 88th Annual Meeting of Transportation Research Board, January 11-15, 2009, Washington, D.C.
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