

# Divyakant Tahlyan

Curriculum Vitae

(Last Updated: November 9, 2023)

Transportation Center  
Northwestern University  
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## Education

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- Sep. 2018 – Sep. 2023 **Ph.D. Civil Engineering, Northwestern University**  
Advisor: Hani S. Mahmassani | Committee: Amanda Stathopoulos, Susan Shaheen, Sunil Chopra  
*Dissertation: Telemobility through the pandemic: Longitudinal tracking, modeling and outlook*
- Sep. 2018 – Mar. 2021 **M.S. Civil Engineering, Northwestern University**  
Advisor: Hani S. Mahmassani | Committee: Amanda Stathopoulos  
*Master's Project: Characterizing Zero-Vehicle Households: A Double-Hurdle Problem Perspective*
- Aug. 2016 – May 2018 **M.S. Civil Engineering, University of South Florida**  
Advisors: Abdul Pinjari & Fred Mannering | Committee: Robert Bertini  
*Thesis: Performance Evaluation of Choice Set Generation Algorithms for Modeling Truck Route Choice: Insights from Large Streams of Truck-GPS Data*
- Jul. 2011 – May 2015 **B.Tech. Civil Engineering, Indian Institute of Technology (IIT) Varanasi**  
Advisor: Anurag Ohri

## Professional Experience

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- Sep. 2023 - now Postdoctoral Scholar and Instructor, Northwestern University
- Postdoctoral Scholar, Transportation Center
  - Instructor, Department of Civil & Environmental Engineering (Winter / Spring 2024)
- Sep. 2019 – Aug. 2023 Graduate Research Assistant, Northwestern University Transportation Center
- Apr. 2021 – Jun. 2021 Teaching Assistant, Northwestern University
- Apr. 2019 – Jun. 2019 Teaching Assistant, Northwestern University
- Aug. 2016 – May 2018 Graduate Research Assistant, University of South Florida
- Jun. 2015 – Jun. 2016 Junior Research Fellow, Indian Institute of Science

## Research Interests

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- Statistical, econometric, machine learning and data science methods for transport data analysis
  - Discrete choice and ordered response models, unobserved heterogeneity
  - Latent factor, class, and transition models
  - Neural networks, clustering, ensemble models, reinforcement learning
  - Big data analytics, missing data analysis, causal inference
- Travel demand modeling and travel behavior analysis
- Technological innovation, mobility, and society: connected, automated, shared and electric (CASE) mobility, remote work, socio-technical transition, climate change, sustainability, and equity
- Behavioral change and behavioral dynamics
- Supply chain analytics
- Urban and regional economics

# Publications

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## Journal Publications

1. Said, M., **Tahlyan, D.**, Stathopoulos, A., Mahmassani, H., Walker, J., Shaheen, S. 2023. In-Person, Pick Up or Delivery? Evolving Patterns of Household Retail Spending Behavior Through the Pandemic. *Travel Behavior and Society*. <https://doi.org/10.1016/j.tbs.2023.01.003>.
2. **Tahlyan, D.**, Stathopoulos, A., Maness, M. 2022. Disentangling Social Capital: Understanding the Effect of Social Support and Social Network Resources on Urban Activity Participation. *Transportation Research Interdisciplinary Perspectives*. <https://doi.org/10.1016/j.trip.2022.100629>.
3. **Tahlyan, D.**, Said, M., Mahmassani, H., Stathopoulos, A., Walker, J., Shaheen, S. 2021. For Whom Did Telework Not Work During the Pandemic? Understanding the Factors Impacting Telework Satisfaction in the US Using a Multiple Indicator Multiple Cause (MIMIC) Model. *Transportation Research Part A*. <https://doi.org/10.1016/j.tra.2021.11.025>.
4. Abkarian, H., **Tahlyan, D.**, Mahmassani, H., Smilowitz, K. 2021. Understanding Visitor Engagement Behavior at Large-Scale Events: Activity Sequence Clustering and Ranking using GPS Tracking Data. *Tourism Management*. <https://doi.org/10.1016/j.tourman.2021.104421>.
5. Cummings, C., Abkarian, H., Zhou, Y., **Tahlyan, D.**, Smilowitz K. and Mahmassani, H. 2021. Simulating Large-Scale Events as a Network of Heterogeneous Queues: Framework and Application. *Transportation Research Record*. <https://doi.org/10.1177/03611981211035755>.
6. Rahul, T.M., Manoj, M., **Tahlyan, D.** and Verma, A., 2021. The Influence of Activities and Socio-Economic / Demographic Factors on the Acceptable Distance in an Indian Scenario. *Transportation in Developing Economies*, 7(3). <https://doi.org/10.1007/s40890-020-00110-3>.
7. Verma, A., **Tahlyan, D.** and Bhusari, S., 2020. Agent based simulation model for improving passenger service time at Bangalore airport. *Case Studies on Transport Policy*, 8(1), pp.85-93. <https://doi.org/10.1016/j.cstp.2018.03.001>.
8. **Tahlyan, D.**, Pinjari, A. 2020. Performance Evaluation of Choice Set Generation Algorithms for Analyzing Route Choice: Insights from Spatial Aggregation for the BFS-LE Algorithm. *Transportmetrica A: Transportation Science*, 16:3, pp. 1030-1061. <https://doi.org/10.1080/23249935.2020.1725790>.
9. Luong, T.D., **Tahlyan, D.** and Pinjari, A.R., 2018. Comprehensive Exploratory Analysis of Truck Route Choice Diversity in Florida. *Transportation Research Record*, 2672(9), pp.152-163. <https://doi.org/10.1177/0361198118784175>.
10. Verma, A., Kumari, A., **Tahlyan, D.** and Hosapujari, A.B., 2017. Development of hub and spoke model for improving operational efficiency of bus transit network of Bangalore city. *Case Studies on Transport Policy*, 5(1), pp.71-79. <https://doi.org/10.1016/j.cstp.2016.12.003>.

## Book Chapters

1. **Tahlyan, D.**, Balusu, S.K., Sheela, P.V., Maness, M. and Pinjari, A.R., 2020. An empirical assessment of the impact of incorporational variables on model transferability. In *Mapping the Travel Behavior Genome* (pp. 145-165). Elsevier. <https://doi.org/10.1016/B978-0-12-817340-4.00009-7>.

## In-preparation (draft available upon request)

1. **Tahlyan, D.**, Mahmassani, H., Stathopoulos, A., Said, M., Shaheen, S., Walker, J. A Random Intercept Latent Transition Analysis (RI-LTA) of Consumer Spending Across Online and In-Person Channels

Through the Pandemic. Accepted for presentation at 2024 TRB Annual Meeting. *To be submitted to Transportation Research Part C: Emerging Technologies*

2. **Tahlyan, D.**, Mahmassani, H., Said, M., Stathopoulos, A., Walker, J., Shaheen, S., Johnson, B. In-Person, Hybrid or Remote? Employers Perspective on the Future of Work Post-Pandemic. Presented at 2023 TRB Annual Meeting in Washington D.C. To be submitted to *Journal Technological Forecasting and Social Change*.
3. **Tahlyan, D.**, Said, M., Mahmassani, H., Stathopoulos, A., Walker, J., Shaheen, S. Trajectories of Telework Through the Pandemic: Outlook and Implications for Cities. Presented at 2023 TRB Annual Meeting in Washington D.C. To be submitted to *Journal Transportation Research Part A: Policy and Practice*
4. Hamad, N., **Tahlyan, D.**, Said, M., Mahmassani, H., Stathopoulos, A., Walker, J., Shaheen, S. Modeling the Effects of Telework on the Duration, Distance, and Time of Day of Out-of-Home Non-Work Activities. Presented at 2023 TRB Annual Meeting in Washington D.C.

### **Conference Presentations (\*presenter)**

2024 (accepted):

1. Jayme, A., Usta, B., Hamad, N., **Tahlyan, D.**, Johnson, B., Mahmassani, H., Al-Qadi, I., Quandt, J. 2024. A Systematic Approach to Evaluate the State of Illinois' Preparedness for Smart Mobility. *Accepted for presentation at the 103<sup>rd</sup> Annual Meeting of Transportation Research Board. Washington D.C.* Also accepted for subsequent transfer to the journal of Transportation Research Record for publication. **Best Paper Award from TRB ACP15 committee on Intelligent Transportation Systems**
2. **Tahlyan, D.**, Mahmassani, H., Stathopoulos, A., Said, M., Shaheen, S., Walker, J., 2024. A Random Intercept Latent Transition Analysis (RI-LTA) of Consumer Spending Across Online and In-Person Channels Through the Pandemic. *Accepted for presentation at the 103<sup>rd</sup> Annual Meeting of Transportation Research Board. Washington D.C.*
3. Hamad, N., **Tahlyan, D.**, Abkarian, H., Mahmassani, H., 2024. Passenger Time Use Comparison Between Traditional and Autonomous Vehicles: A Latent Class and Transition Analysis. *Accepted for presentation at the 103<sup>rd</sup> Annual Meeting of Transportation Research Board. Washington D.C.* Also accepted for subsequent transfer to the journal of Transportation Research Record for publication.
4. Hamad, N., **Tahlyan, D.**, Chen, Y., Mahmassani, H., 2024. The Emergence of Third Places Beyond Central Cores: A Case Study of Chicago. *Accepted for presentation at the 103<sup>rd</sup> Annual Meeting of Transportation Research Board. Washington D.C.*
5. **Tahlyan, D.**, Mahmassani, H., Stathopoulos, A., Said, M., Shaheen, S., Walker, J., 2024. A Random Intercept Latent Transition Analysis (RI-LTA) of Consumer Spending Across Online and In-Person Channels Through the Pandemic. *Accepted for presentation at International Choice Modeling Conference. April 2024. Puerto Varas. Chile*

2023:

6. **Tahlyan, D.\***, Said, M., Mahmassani, H., Stathopoulos, A., Walker, J., Shaheen, S. 2023. Trajectories of Telework Through the Pandemic: Outlook and Implications for Cities. 102<sup>nd</sup> Annual Meeting of Transportation Research Board. Washington D.C. [Oral]
7. Hamad, N.\*, **Tahlyan, D.**, Said, M., Mahmassani, H., Stathopoulos, A., Walker, J., Shaheen, S. 2023. Modeling the Effects of Telework on the Duration, Distance, and Time of Day of Out-of-Home Non-Work Activities. 102<sup>nd</sup> Annual Meeting of Transportation Research Board. Washington D.C. [Poster]

8. **Tahlyan, D.\***, Mahmassani, H., Said, M., Stathopoulos, A., Walker, J., Shaheen, S., Johnson, B. 2023. In-Person, Hybrid or Remote? Employers Perspective on the Future of Work Post-Pandemic. 102<sup>nd</sup> Annual Meeting of Transportation Research Board. Washington D.C. [Poster]

2022:

9. Said, M.\*, **Tahlyan, D.**, Stathopoulos, A., Mahmassani, H., Walker, J., Shaheen, S. 2022. In-Person, Pick Up or Delivery? Evolving Patterns of Household Spending Behavior Through the Early Reopening Phase of the COVID-19 Pandemic. 4<sup>th</sup> Bridging Transportation Researchers (BTR) Conference. Online [Oral]
10. **Tahlyan, D.\***, Said, M., Mahmassani, H., Stathopoulos, A., Walker, J., Shaheen, S. 2022. For Whom Did Telework Not Work During the Pandemic? Understanding the Factors Impacting Telework Satisfaction in the US Using a Multiple Indicator Multiple Cause (MIMIC) Model. 101<sup>st</sup> Annual Meeting of Transportation Research Board. Washington D.C. [Oral]
11. **Tahlyan, D.\***, Said, M., Mahmassani, H., Stathopoulos, A., Walker, J., Shaheen, S. 2022. Latent Transition Analysis of Consumer Spending Behavior and Adaptation Across Online and In-Person Channels Through the Pandemic. 101<sup>st</sup> Annual Meeting of Transportation Research Board. Washington D.C. [Poster]

2021:

12. **Tahlyan, D.\***, Stathopoulos, A., Maness, M. 2021. Disentangling Social Capital: Understanding the Effect of Social Support and Social Network Resources on Urban Activity Participation. 3<sup>rd</sup> Bridging Transportation Researchers (BTR) Conference. Online. [Oral]
13. **Tahlyan, D.**, Stathopoulos, A.\*, Maness, M. 2021. Disentangling Social Capital: Understanding the Effect of Social Support and Social Network Resources on Urban Activity Participation. 100<sup>th</sup> Annual Meeting of Transportation Research Board. Online. [Poster]
14. **Tahlyan, D.\***, Kim, E., Mahmassani, H. 2021. Real-Time Short-Term Traffic Forecasting: A Meta-Learner Based Ensemble Framework. 100<sup>th</sup> Annual Meeting of Transportation Research Board. Online. [Poster]
15. **Tahlyan, D.\*** and Mahmassani, H. 2021. Characterizing zero-vehicle households: A double-hurdle problem perspective. 100<sup>th</sup> Annual Meeting of Transportation Research Board. Online. [Poster]
16. Cummings, C.\*, Abkarian, H., Zhou, Y., **Tahlyan, D.**, Smilowitz, K. and Mahmassani, H. 2021. Simulating Large-Scale Events as a Network of Heterogeneous Queues: Framework and Application. 100<sup>th</sup> Annual Meeting of Transportation Research Board. Online. [Poster]
17. Cummings, C.\*, **Tahlyan, D.**, Abkarian, H., and Mahmassani, H. 2021. Understanding Attendee Satisfaction at Planned Special Events: Role of Quality of Transportation Services and Prior Expectations. 100<sup>th</sup> Annual Meeting of Transportation Research Board. Online. [Poster]
18. **Tahlyan, D.\***, Kim, E., and Mahmassani, H. 2021. Real-Time Short-Term Traffic Forecasting: A Meta-Learner based Ensemble Framework. 2<sup>nd</sup> Bridging Transportation Researchers (BTR) Conference. Online. [Oral]

2019:

19. **Tahlyan, D.**, Maness, M.\* 2019. Incorporating social capital as a latent variable in discrete choice models. International Choice Modeling Conference (ICMC), Kobe, Japan. [Oral]

2018:

20. **Tahlyan, D.**, Sheela, P.V., Maness, M.\*, Pinjari, A.R. 2018. Improving the spatial transferability of travel demand forecasting models: An empirical assessment of the impact of incorporating attitudes on model transferability. 15<sup>th</sup> International Conference on Travel Behavior Research, Santa Barbara. [Oral]
21. **Tahlyan, D.**, Sheela, P.V., Maness, M.\*, Pinjari, A.R. 2018. Improving the spatial transferability of travel demand forecasting models: An empirical assessment of the impact of incorporating attitudes on model transferability. 7<sup>th</sup> International Conference on Innovations in Travel Modeling (ITM), Atlanta. [Oral]
22. **Tahlyan, D.\***, Pinjari, A. R., 2018. Performance Evaluation of Choice Set Generation Algorithms for Modeling Truck Route Choice: Insights from Large Streams of Truck-GPS Data. 97th Annual Meeting of Transportation Research Board, Washington D.C. [Poster]
23. Luong, T.D.\*, **Tahlyan, D.** and Pinjari, A.R., 2018. Comprehensive Exploratory Analysis of Truck Route Choice Diversity in Florida. 97th Annual Meeting of Transportation Research Board, Washington D.C. [Poster]

2017:

24. **Tahlyan, D.\***, Pinjari, A. R., 2017. Performance Evaluation of Choice Set Generation Algorithms for Modeling Truck Route Choice: Insights from Large Streams of Truck-GPS Data. 4th Conference of the Transportation Research Group of India, Mumbai, India. [Oral]
25. **Tahlyan, D.\***, Pinjari, A. R., 2017. Performance Evaluation of Choice Set Generation Algorithms for Modeling Truck Route Choice: Insights from Large Streams of Truck-GPS Data. 5th Annual UTC Conference for the Southeastern Region, Gainesville, FL. [Oral]

### **Project Reports**

1. Jayme, A., Usta, B., Hamad, N., **Tahlyan, D.**, Johnson, B., Mahmassani, H., Al-Qadi, I., Quandt, J. 2023. Smart Mobility Blueprint for Illinois. Report Number: FHWA-ICT-23-006. Prepared for Illinois Department of Transportation. <https://doi.org/10.36501/0197-9191/23-007>
2. **Tahlyan, D.**, Hamad, N., Said, M., Mahmassani, H., Stathopoulos, A., Shaheen, S., Walker, J. 2022. Analysis of teleworkers' experiences, adoption evolution and activity patterns through the pandemic. Report Number: Telemobility-TR-2022-4. Prepared for Telemobility University Transportation Center. <https://rosap.ntl.bts.gov/view/dot/65844>
3. **Tahlyan, D.**, Said, M., Mahmassani, H., Stathopoulos, A., Shaheen, S., Walker, J. 2022. Longitudinal tracking survey to understand changing consumer spending, telework and mobility patterns through the pandemic. Report Number: Telemobility-TR-2022-5. Prepared for Telemobility University Transportation Center. <https://rosap.ntl.bts.gov/view/dot/65993>
4. Mannering, F., Maness, M., Pinjari, A., Zhang, Y., Alnawmasi, N., Balusu, S.K., Barbour, N., Behnood, A., Eluru, N., Luong, T., Mishra, D., Sheela, P.V. and **Tahlyan, D.**, 2019. Emerging Econometric and Data Collection Methods for Capturing Attitudinal and Social Factors in Activity, Travel Behavior and Safety Modeling. Prepared for Center for Teaching Old Models New Tricks (TOMNET), U.S. Department of Transportation University Transportation Center. <https://rosap.ntl.bts.gov/view/dot/62804>
5. Mannering, F., Maness, M., Pinjari, A., Zhang, Y., Balusu, S.K., Barbour, N., Menon, N., Sheela, P.V. and **Tahlyan, D.**, 2018. Investigation of the Role of Attitudinal Factors on the Adoption of Emerging

Automated Vehicle and Safety Technologies. Prepared for Center for Teaching Old Models New Tricks (TOMNET), U.S. Department of Transportation University Transportation Center.

<https://rosap.ntl.bts.gov/view/dot/62803>

6. **Tahlyan, D.**, Pinjari, A.R., Luong, T. and Ozkul, S., 2017. Truck Route Choice Modeling using Large Streams of GPS Data. Report No. CAIT-UTC-NC32. Prepared for Center for Advanced Infrastructure and Transportation (CAIT), U.S. Department of Transportation University Transportation Center. <https://rosap.ntl.bts.gov/view/dot/34888>
7. **Tahlyan, D.**, Luong, T.D., Pinjari, A.R. and Ozkul, S., 2017. Development and Analysis of Truck Route Choice Data for the Tampa Bay Region using GPS Data. Report BDK25-730-3. Prepared for Florida Department of Transportation. <http://dx.doi.org/10.13140/RG.2.2.22337.43363>

### **Ph. D. Dissertation**

1. **Tahlyan, D.** 2023. Telemobiltiy through the pandemic: Longitudinal Tracking, Modeling and Outlook. Northwestern University. <https://www.proquest.com/docview/2856237653>

### **Master's Thesis**

1. **Tahlyan, D.** 2018. Performance Evaluation of Choice Set Generation Algorithms for Modeling Truck Route Choice: Insights from Large Streams of Truck-GPS Data. University of South Florida. <https://digitalcommons.usf.edu/etd/7649/>

## **Recognition**

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### **Awards & Honors**

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| 2024 | Best Paper Award. TRB ACP15 committee on Intelligent Transportation Systems for paper A Systematic Approach to Evaluate the State of Illinois |
| 2021 | Northwestern University Transportation Center Dissertation Year Fellowship (\$39, 648)  |
| 2021 | Transportation & Development Institute Bob Camillone Memorial Scholarship, American Society of Civil Engineers Illinois Section (\$2,000)     |
| 2018 | Walter P. Murphy Fellowship, Northwestern University (\$52,178)   |
| 2017 | 2 <sup>nd</sup> place. USF ITE Student Chapter Transportation Data Visualization Competition (\$100)  |

### **Grants**

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| 2022 | Northwestern Open Access Fund (\$1000)   |
| 2023 | Northwestern TGS Conference Travel Grant. For attending 102 <sup>nd</sup> Annual Meeting of Transportation Research Board in Washington D.C. (\$600) |
| 2022 | Northwestern TGS Conference Travel Grant. For attending 101 <sup>st</sup> Annual Meeting of Transportation Research Board in Washington D.C. (\$600) |
| 2017 | USF Student Government. For attending 4 <sup>th</sup> Conference of Transportation Research Group of India in Mumbai, India. (\$750)                 |
| 2017 | USF ITE Student Chapter. For attending 5 <sup>th</sup> Annual UTC Conference for the Southeastern Region in Gainesville, FL. (\$150)                 |

## Media Mentions

- 2023\* Telework Transportation Research in Light of the COVID-19 Pandemic. <https://www.nationalacademies.org/trb/blog/telework-transportation-research-in-light-of-the-covid-19-pandemic>
- 2021 Northwestern Graduate School Spotlight. <https://www.tgs.northwestern.edu/about/our-people/spotlight/divyakant-tahlyan.html>
- 2021 "Roadwork projects must consider issues of pedestrians, say IISc researchers", Deccan Herald. <https://www.deccanherald.com/city/bengaluru-infrastructure/roadwork-projects-must-consider-issues-of-pedestrians-say-iisc-researchers-942957.html>
- 2020\* "Fewer crashes, but more serious injuries in Chicago during pandemic, data shows", WGN-TV. <https://wgntv.com/news/coronavirus/fewer-crashes-but-more-serious-injuries-in-chicago-during-pandemic-data-shows/>. Also read: <https://www.transportation.northwestern.edu/news-events/articles/2020/chicago-mobility-under-covid-19.html>.
- 2018 "Boarding at model Kempegowda International Airport will be a breeze", Bangalore Mirror. <https://bangaloremirror.indiatimes.com/bangalore/others/boarding-at-model-kempegowda-international-airport-will-be-a-breeze/articleshow/63671281.cms>
- 2016 "IISc to develop software that could prevent mishaps like the stampede during Kumbh Mela", India Times. <https://www.indiatimes.com/news/india/iisc-to-develop-software-that-could-prevent-mishaps-like-the-stampede-during-kumbh-mela-255592.html>
- \* Media article does not explicitly mention me, but either mentions or refers to my research

## Research Projects

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- '23 As postdoctoral scholar at Northwestern University Transportation Center
- **Development of Freight Activity Forecasting Tool** (Sponsoring Agency: Echo Global Logistics)
  - **Which cities will thrive in the next normal?** (Sponsoring Agency: Cintra US Services)
- '19 – '23 As graduate research assistant at Northwestern University Transportation Center
- **Smart Mobility Blueprint for Illinois:** Survey design to gather information from public, private and academic stakeholders regarding ongoing autonomous/electric mobility work in the state of Illinois (Sponsoring Agency: IL DOT)
  - **UTC Telemobility:** E-commerce and tele-work adoption amid a global pandemic, longitudinal tracking survey, latent class and transition analysis (Sponsoring Agency: US DOT)
  - **Advisory Services for Maricopa Association of Governments (MAG) ABM-DTA Model Integration Phase II:** dynamic traffic assignment software performance evaluation (Sponsoring Agency: Maricopa Association of Governments)
  - **EAA Airshow Access Logistics:** multi-modal simulation, scenario design, policy recommendations (Sponsoring Agency: EAA)
- '16 – '18 As graduate research assistant at University of South Florida
- **UTC Teaching Old Models New Tricks:** spatial transferability of travel models, choice models and latent variables, survey design, social network analysis (Sponsoring Agency: US DOT)

- **Truck Route Choice Modeling using Large Streams of GPS Data:** large scale GPS data analysis, discrete choice modeling, route choice set generation (Sponsoring Agency: CAIT)
  - **Development and Analysis of Truck Route Choice Data for the Tampa Bay Region using GPS Data:** heuristic development for raw GPS data to route choice data conversion (Sponsoring Agency: FL DOT)
- '15 – '16 As junior research fellow at the Indian Institute of Science
- **The Kumbh Mela Experiment:** data collection in large-scale high-density crowd event, personal GPS tracker and video data collection
  - **Agent based pedestrian simulation modeling for Bangalore International Airport:** Anylogic based simulation modeling, discrete choice model estimation and survey design

## Teaching Training and Certification

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- Summer '23 **CIRTLE Associate Certification** | Center for the Integration of Research, Teaching and Learning at Northwestern (See: <https://searle.northwestern.edu/programs-services/cirtl-northwestern/cirtl-certificate.html>)
- Spring '23 **Mentored Discussions of Teaching (MDT)** | Northwestern Searle Center for Advancing Learning and Teaching
- Fall '22 **Introduction to Evidence-Based Undergraduate STEM Teaching** | Massive Online Open Course, Center for the Integration of Research, Teaching and Learning (CIRTLE) Network
- Fall '22 **MOOC-Centered Learning Community** | Northwestern Searle Center for Advancing Learning and Teaching

## Teaching Experience

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- Spring '24 **Instructor, Choice Modeling in Engineering (CIV\_ENV 377-0)** – Spring 2024 quarter, Department of Civil & Environmental Engineering, Northwestern University (upcoming teaching assignment as sole instructor)
- Winter '24 **Instructor, Travel Demand Analysis and Forecasting 1 (CIV\_ENV 480-1)** – Winter 2024 quarter, Department of Civil & Environmental Engineering, Northwestern University (upcoming teaching assignment as sole instructor)
- Spring '21 **Teaching Assistant, Economics and Finance for Engineers (CIV\_ENV 205)** | Class Size: 72 | Weekly in-class discussion session (1 hour), weekly office hours (2 hours) | Median CTEC Score: 5/6 for TA's ability to answer student's questions, preparation for each session, communication of ideas, and interest in teaching the course | Course In-charge: Pablo Durango-Cohen | Northwestern University

Spring '19     **Teaching Assistant, Engineering Analysis 3: System Dynamics (GEN\_ENG 205-3: EA3)** | Class Size: 106 | Weekly in-class discussion session (1 hour), weekly office hours (2.5 hours), and weekly homework and exam grading (for 10 weeks in total) | Median CTEC Score: 5/6 for TA's ability to answer student's questions, preparation for each session, communication of ideas, and interest in teaching the course | Course In-charge: Kyoo-Chul Park | Northwestern University

## Mentoring Experience

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- Nadim Hamad, Ph.D. Student, Northwestern University [Mobility 4.0 | Telemobility UTC]
- Meredith Raymer, Ph.D. Student, Northwestern University [Cintra Project]
- Xiaowei Bi, Master's Student, Northwestern University [Mobility 4.0]

## Invited Talks

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- *"Into the hidden world of latent variables: A tutorial in latent factor and latent class modeling in R"*. Ready for Research Series. Northwestern Transportation Club. October 2023
- *"Telemobility through the pandemic: Longitudinal Tracking, Modeling and Outlook"*. Northwestern University Transportation Center Seminar Series. May 2023.
- *"Future of Telemobility: Longitudinal Tracking Survey"*. For course: CIV\_ENV 480-2 Travel Demand Modeling and Forecasting II. April 2022.
- *"Disentangling Social Capital – Understanding the Effect of Social Support and Network Resources on Urban Activity Participation"*. IST Lab webinar series. Indian Institute of Science. April 2021. [Virtual]

## Professional Service

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### **Peer Review for Journals (total no. of reviews)**

**Total = 46**

Transportation Research Part A: Policy and Practice (21)  
Transportation Research Part D: Transport and Environment (5)  
Journal of Transport Geography (4)  
Journal of Infrastructure Systems (3)  
Accident Analysis and Prevention (2)  
IATSS Research (2)  
IEEE Access (2)  
Journal of Transport & Health (3)  
Case Studies on Transport Policy (1)  
Innovative Infrastructure Solutions (1)  
Journal of Advance Transportation (1)  
Cogent Business and Management (1)

### **Peer Review for Conferences (years: total no. of reviews)**

**Total = 32**

Bridging Transportation Researchers Conference (2021: 1, 2020: 2)  
Conference of Transportation Research Group of India (2017: 4)

IEEE International Conference on Intelligent Transportation (2021: 2)

Transportation Research Board Annual Meeting (2024: 1, 2023: 8; 2022: 6; 2021: 5, 2020: 2, 2018: 1)

**Other Service**

Board Member, Northwestern Transportation Club, 2020-2021

Data Steward, Northwestern University Transportation Center, 2020-2023

Undergraduate Training & Placement Representative, Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, 2014-2015

Joint Secretary, Cine Club, Indian Institute of Technology (BHU), Varanasi, 2013-2014