Giacomo Dalla Chiara

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linkedin.com/in/giacomodc

Education

2013-18 **PhD in Engineering Systems & Design**
Singapore University of Technology and Design, Singapore
- Thesis: Commercial vehicle parking in congested urban areas
- Advisors: Prof. Lynette Cheah (SUTD), Prof. Moshe Ben-Akiva (MIT)

2012 **Visiting student**
Tsinghua University, School of Economics and Management, Beijing

2010-13 **MSc in Statistics**
Swiss Federal Institute of Technology (ETH Zurich), Dep. of mathematics, Zurich
- Thesis: Factor model approach to forecasting with high-dimensional data
- Advisor: Prof. Peter Bühlmann (ETH Zurich)

2008 **Visiting student**
Utrecht University, School of Economics, The Netherlands

2007-10 **BSc in Economics & Business**
Libera Università degli Studi Sociali Guido Carli (LUISS), Italy
- Thesis: A monopolistic state in competitive markets
- Advisor: Prof. Andrea Renda (LUISS)

Professional Positions

2024-now **Affiliate Instructor**
University of Washington, Civil & Environmental Engineering
Instructor at the Online Master of Supply Chain Transportation and Logistics

2023-now **Research Scientist**
University of Washington, Civil & Environmental Engineering
Investigative lead at Prof. Anne Goodchild's Urban Freight Lab

2019-23 **Postdoctoral Scholar**
University of Washington, Civil & Environmental Engineering
Investigative lead at Prof. Anne Goodchild's Urban Freight Lab

2017-18 **Visiting Research Fellow**
Massachusetts Institute of Technology, Civil & Environmental Engineering
Developed choice models of delivery drivers' behaviors at Prof. Moshe Ben-Akiva's Intelligent Transportation Systems Lab

2013-18 **Graduate Research Assistant**
Singapore University of Technology & Design, Engineering Systems Design
Collected data and developed models of last-mile delivery operations at Prof. Lynette Cheah's Sustainable Urban Mobility Research Lab

2012-13 **Graduate Research Assistant**
Swiss Federal Institute of Technology (ETH Zurich)
Implemented text-mining models for a study on death penalty at the Center for Law and Economics (Prof. Daniel Chen lab)

Research Interests

Urban freight behavior modeling
Developed novel data collection techniques and estimated discrete choice models of freight stakeholders behaviors, including routing, cruising, walking, and parking behaviors of delivery drivers and shoppers across different modes and contexts.

Freight infrastructure planning
Developing agent-based simulation models and assessed the impact of infrastructure planning and policies, including curb management, freight routes, parkign and road pricing. Developed guides and white papers to inform public and private stakeholders.

Multimodal freight transportation
Explored the use of novel technologies and freight transportation modes, including electric bikes, cargo bikes, parcel lockers, autonomous vehicles, parkign information systems. Assessed their system-level impact and their interaction with the existing urban infrastructure.

Community impacts of freight systems
Quantification of the externalities caused by the distribution of goods and services to communities and their access inequities.

Publications [Google Scholar profile]

Appeared in Peer-Reviewed Journals

27. *Giacomo Dalla Chiara*, Anne Goodchild, Andisheh Ranjbari, Susan Shaheen, Donald Shoup (2024) Editorial for the special issue The Curb. To appear in **Transportation Research Part A: Policy and Practice**

26. Thomas Maxner, *Giacomo Dalla Chiara*, Anne Goodchild (2024) The state of sustainable urban freight planning in the United States. **Journal of the American Planning Association**

25. *Giacomo Dalla Chiara*, Griffin Donelly, Anne Goodchild (2023), How cargo cycle drivers use the urban transport infrastructure, **Transportation Research Part A: Policy and Practice**, 103562(167)

24. Andisheh Ranjbari, Caleb Diehl, *Giacomo Dalla Chiara*, Anne Goodchild (2023) Do parcel lockers reduce delivery times? Evidence from the field, **Transportation Research Part E: Logistics and Transportation Review**, 103070(172)

23. *Giacomo Dalla Chiara*, Fiete Krutein, Andisheh Ranjbari, Anne Goodchild (2022), Providing curb availability information to delivery drivers reduces cruising for parking, **Scientific Reports** 12, 19355

22. Andisheh Ranjbari, Caleb Diehl, *Giacomo Dalla Chiara*, Anne Goodchild (2022), What is the right size for residential building parcel locker?, **Transportation Research Record** 0(0)

21. Thomas Maxner, *Giacomo Dalla Chiara*, Anne Goodchild (2022), Identifying the challenges to sustainable urban last-mile deliveries: perspectives from public and private stakeholders, **Sustainability** 14(8), 4701

20. André Romano Alho, Simon Oh, Ravi Seshadri, *Giacomo Dalla Chiara*, Wen Han Chong, Takanori Sakai, Lynette Cheah, Moshe Ben-Akiva (2022), An agent-based simulation assessment of freight parking demand management strategies for large urban freight generators, **Research in Transportation Business & Management**

19. *Giacomo Dalla Chiara*, Fiete Krutein, Andisheh Ranjbari, Anne Goodchild (2021), Understanding urban commercial vehicle driver behaviors and decision making, **Transportation Research Record** 2675(9), pp. 608-619

18. *Giacomo Dalla Chiara*, Anne Goodchild (2020), Do commercial vehicles cruise for parking? Empirical evidence from Seattle, **Transport Policy** 97, pp. 26-36

17. Takanori Sakai, André Romano Alho, BK Bhavathrathan, *Giacomo Dalla Chiara*, Raja Gopalakrishnan, Peiyu Jing, Tetsuro Hyodo, Lynette Cheah, Moshe Ben-Akiva (2020), SimMobility Freight: An agent-based urban freight simulator for evaluating logistics solutions, **Transportation Research Part E: Logistics and Transportation Review** 141, 102017

16. Andisheh Ranjbari, Josè Luis Machado-León, *Giacomo Dalla Chiara*, Don MacKenzie, Anne Goodchild (2020), Testing curbside management strategies to mitigate the impacts of ride-sourcing services on traffic, **Transportation Research Record** 2675(2), pp. 219-232

15. *Giacomo Dalla Chiara*, André Romano Alho, Cheng Cheng, Moshe Ben-Akiva, Lynette Cheah (2020), Exploring Benefits of Cargo-Cycles versus Trucks for Urban Parcel Delivery under Different Demand Scenarios, **Transportation Research Record** 2674(5), pp. 553-562

14. *Giacomo Dalla Chiara*, Lynette Cheah, Carlos Lima Azevedo, Moshe E Ben-Akiva (2020), A Policy-Sensitive Model of Parking Choice for Commercial Vehicles in Urban Areas, **Transportation Science** 54(3), pp. 606-630

13. *Giacomo Dalla Chiara*, Lynette Cheah (2017), Data stories from urban loading bays, **European Transport Research Review** 9(50)

12. Xin Sun, Jiatao Ding, *Giacomo Dalla Chiara*, Lynette Cheah, Ngai-Man Cheung (2017), A generic framework for monitoring local freight traffic movements using computer vision-based techniques, **5th IEEE International Conference on Models and Technologies for Intelligent Transportation Systems** (MT-ITS), pp. 63-68

White paper

11. *Giacomo Dalla Chiara*, Rishi Verma, Kelly Rula, Anne Goodchild (2023) Biking the goods: How north-american cities can prepare for and promote large-scale adoption of cargo e-bikes. In collaboration with PeopleForBikes. University of Washington, Urban Freight Lab

Book Chapters

10. André Alho, Takanori Sakai, *Giacomo Dalla Chiara* (2023) New urban freight developments and land use. Chapter 22 in: Joao de Abreu e Silva, Kristina M. Currans, Veronique Van Acker, Robert J. Schneider (ed.), Handbook on Transport and Land Use, pp. 383-397, **Edward Elgar Publishing**

9. *Giacomo Dalla Chiara*, Anne Goodchild (2022), Giving curb visibility to delivery drivers, Section in: American Planning Association 2022 State of Transportation Planning, pp. 134-143, **American Planning Association (APA)**

Other Publications

8. Anne Goodchild, *Giacomo Dalla Chiara*, Rishi Verma, Kelly Rula (2022) Analysis of online shopping and shopping travel behaviors in West Seattle. Urban Freigth Lab

7. Anne Goodchild, *Giacomo Dalla Chiara*, Nota Goulianou, Seyma Gunes (2022) Understanding and mitigating freight-related impacts from the West Seattle bridge closure, Supply Chain Transportation & Logistics Center, University of Washington

6. Urban Freight Lab (2022) Mapping the challenges to sustianable urban freight

5. Anne Goodchild, *Giacomo Dalla Chiara*, Andisheh Ranjbari, Krutain Fiete, Griffin Donnelly, Edward McCormack, Elizabeth Guzy, Vinay Amatya, Amelia Bleeker, Milan Jain (2022) Technology integration to grain commercial efficiency for the urban goods delivery system. Supply Chain Transportation & Logistics Center, University of Washington

4. Urban Freight Lab (2021) The Seattle neighborhood delivery hub pilot project: An evaluation of the operational impacts of a neighborhood delivery hub model on last-mile delivery

3. Bill Keough, *Giacomo Dalla Chiara*, Anne Goodchild (2021) Urban Freight Innovation: Leading-edge strategies for smart cities. The Coast Guard Journal of Safety & Security at Sea, pp. 44-49

2. Urban Freight Lab (2020) Cargo e-bike delivery pilot test in Seattle

1. Anne Goodchild, Don McKenzie, Andisheh Ranjbari, Jose Machado, *Giacomo Dalla Chiara* (2019) Curb allocation change project. Urban Freight Lab & Sustainable Transportation Lab, University of Washington

Research Grants

PI/Co-PI

Leveraging a connected network of unattended micro-pantries to reduce food waste and improve food security
National Science Foundation NSF Award #2431098 - NSF 24-534 Civic Innovation Challenge

Balancing freight and goods delivery needs in designing complete streets
NCHRP 08-176 - National Academic of Sciences, Engineering, and Medicine

Walking and parking dynamics of delivery drivers
Swedish Agency for innovation Systems (VINNOVA)

Biking the goods
Sponsored by: Bosch eBike Systems, Michelin North America, Seattle Department of Transportation, Fleet Cycle, NetZero Logistics, Urban Arrow, Gazelle USA

A holistic data-driven framework for curb space use and policy-making
Computer Science for the Environment (CS4Env) Initiative

Analysis of a foodbank home delivery program
Urban@UW Research Spark Grant

Cargo e-bike stories in the US
Pacific Northwest Transportation Consortium (PacTrans) Region 10 - Success stories in Transportation Research

Project Manager

Digitizing the last-mile of urban goods to improve curb access and utilization
US Department of Transportation. SMART grant program

West Seattle Bridge Case Study
Seattle Department of Trasportation

Analysis of parking utilization using curb parkign sensors
Seattle Department of Transportation

Roadblocks to sustainable urban freight
Amazon

Technology integration to gain commercial efficiency for the urban goods delivery system
US Department of Energy (DOE)

UPS e-bike dleivery pilot test in Seattle
Seattle Department of Transportation

Teaching Experience

Lecturer/Teaching Assistant

- SCTL 513: Generative AI and Optimization Tools in the Supply Chain, Winter 2024, MSc Supply Chain Transportartion & Logistics, University of Washington - Course instructor
- SCTL 501: Introduction to Supply Chain Transportation and Logistics, Fall 2024, MSc Supply Chain Transportartion & Logistics, University of Washington - Course Instructor

- SCTL 507: The Practicum, Summer 2024, MSc Supply Chain Transportartion & Logistics, University of Washington - Course Instructor
- CET 587: Transportation Logistics, Spring 2022, Department of Civil & Environmental Engineering, University of Washington - Course Instructor
- Introduction to Statistical Computing in R, Summer 2018, Singapore University of Technology and Design - Course Coordinator
- Discrete choice analysis, Summer 2017, MIT Professional Education - Lab Instructor
- 40.316 Game theory, Spring 2016, Singapore University of Technology and Design - Teaching Assistant
- 40.017 Probability and Statistics, Winter 2016, Singapore University of Technology and Design - Teaching Assistant

Guest Lecturer

- CET 511: Planning for people and freight, Fall 2024, Department of Civil & Environmental Engineering, University of Washington - Guest Lecturer
- CET 564: Sustainable transportation from a system perspective, Fall 2024, Department of Civil & Environmental Engineering, University of Washington - Guest Lecturer
- CEE 4610: Multimodal Transportation Planning, Design, and Operations, Spring 2022, Georgia Tech - Guest Lecturer
- CEE 5326: Sustainable Transportation, Spring 2021, Southern Methodist University - Guest Lecturer
- CE 563: Transportation & Logistics, Spring 2021, Portland State University - Guest Lecturer

Fellowships & Awards

6/2023	Delegate at the Organization for Economic Co-operation and Development (OECD) routable on Urban Logistics Hubs, Paris (France)
9/2022	Urban@UW fellow, University of Washington
1/2021	Best Practical Implications Paper Award, Transportation Research Board's Urban Freight Transportation Committee, The National Academic of Science, Engineering, and Medicine
2013-18	President Graduate Fellowships. Total grant: SG$ 306,000
1/2012	Travel grant to fund research stay at Tsinghua University, Swiss Federal Institute of Technology (ETH Zurich). Total grant: CHF 1000
8/2010	Cum Laude distinction, Libera Università degli Studi Sociali Guido Carli (LUISS)

Consulting

CPCS Transcom Limited (2022-2023)
Advised on the development of the 2050 Transport Policy Plan for the Metropolitan Planning Organization for Minneapolis and St. Paul

Media Coverage

- Sustainable urban futures (to appear on 10/2024) Living Change Podcast
- Want your packages delivered faster and cheaper? AI is on the case (1/2024) Wall Street Journal

- How (and why) to start a delivery bike revolution (12/2023) StreetsBlogUSA
- It's time to replace urban delivery vans with e-bikes (9/2023) Vox
- NYC considers giving pedal-assisted dleivery vans the green light (9/2023) Government Technology
- Episode of the documentary series Mobility Explorer on curbside management (8/2023) Le Facilitateur de Mobilité
- Can cargo e-bike replace delivery trucks and vans? (3/2023) REV by Lyft
- Electric cargo bikes deliver big (12/2022) PeopleForBikes News
- The power of pedaling (9/2022) The Bridge, Blog of the University of Washington
- Urban Freight Lab uses AI to show and forecast available parking (10/2021) UFL YouTube
- We are going to need a lot more electric delivery bikes (9/2021) Bloomberg CityLab
- Delivery vehicles waste a lot of time searching for parking Cities can fix that (7/2021) CityMonitor
- Research: Do commercial vehicles cruise for parking? (7/2021) CityLogistics.info
- Prototype PNNL, UW web app predicts parking space availability for delivery drivers (5/2021) Green Car Congress
- From Curb to Doorstep: Driving Efficiencies for Delivering Goods (5/2021) Pacific Northwest National Laboratory News & Media
- The last mile home (4/2021) Oregon Business
- Giacomo Dalla Chiara ritira il premio del Transportation Research Board (1/2021) Smart Building Italia
- These sleek electric cargo bikes are the future of urban delivery (10/2020) FastCompany
- Virtualizing the Physical Curb at Scale (8/2020) Medium.com
- Cargo cycle schemes can 'offer considerable benefits', says new research (8/2020) TransportXtra
- Research: exploring benefits of cargo bikes versus trucks for urban parcel deliveries (7/2020) CityLogistics.info
- Researchers tackle the 'final 50 feet' of delivery challenge as online shopping spikes (1/2020) GeekWire
- Giacomo Dalla Chiara, lo scienziato dello «Smart parking» che abbatte i tempi morti (1/2020) Corriere della Sera
- Research: Data stories from urban loading bays (12/2017) CityLogistics.info

Presentations

Since 2015, I gave **50 presentations** at international conferences and as guest speaker to events hosted by institutions, private companies and organizations including the US Federal Highway Administration (FHWA) and the Organization for Economics Cooperation & Development (OECD). Some recordings are publicly available: Urban Freight Lab and PeopleForBikes .

Conference Presentations

1/2024 The missing link between commercial curb use and freight trip generation, Transportation Research Board (TRB) 103rd annual meeting, Washington DC, US

1/2024 The state of sustainable urban freight planning in the US, Transportation Research Board (TRB) 103rd annual meeting, Washington DC, US

1/2024 How proximity affects shopping travel behaviors, Transportation Research Board (TRB) 103rd annual meeting, Washington DC, US

7/2022 A north-American perspective on urban logistics, World Conference on Transportation Research (WCTRS) virtual meeting

6/2022 Can real-time curb availability information improve urban delivery efficiency?, National Travel Monitoring Exposition & Conference (NaTMEC), virtual meeting

5/2022 Can real-time curb availability information improve urban delivery efficiency?, 9th International Urban Freight Conference (I-NUF) Long Beach, California, US

1/2022 How cargo cycle drivers use the urban transport infrastructure, Transportation Research Board (TRB) 101st annual meeting, Washington DC, US

9/2021 A parking information system for urban delivery vehicles: the Seattle case study, Freight Mobility Research Institute Workshop, 24th IEEE International Conference on Intelligent Transportation, Indianapolis, US

1/2021 Commercial vehicle driver behaviors and decision making: lessons learned from urban ridealongs, 100th Transportation Research Board (TRB) annual meeting, Washington DC, US

1/2021 Empirical analysis of Urban Commercial Vehicles Stops Formation and Parking Dwell Times, Transportation Research Board (TRB) 100th annual meeting, Washington DC, US

9/2020 Do commercial vehicles cruise for parking?, Urban Transport Conference, Frankfurt, Germany

1/2020 A method to empirically investigate the effect of limited parking availability on commercial vehicles travel times, Transportation Research Board (TRB) 99th annual meeting, Washington DC, US

10/2019 Exploring the benefits of using cargo cycles for last-mile deliveries under different demand scenarios, 26th Intelligent Transportation Systems (ITS) World Congress, Singapore

10/2019 Do commercial vehicles cruise for parking?, METRANS International Urban Freight Conference (I-NUF), Long Beach, US

1/2019 Managing commercial vehicles parking in congested urban areas, TRB Workshop on doctoral research in transportation modeling and travel behavior, Transportation Research Board (TRB) 98th annual meeting, Washington DC, US

8/2018 Commercial vehicles parking in congested urban areas: A case study on Singapore shopping malls, Volvo Research and Educational Foundation (VREF) Advanced Studies Institute on Sustainable Urban Freight System, Rensselaer Polytechnic Institute, Troy (NY), US

6/2017 Commercial vehicle parking behaviors in congested urban areas, 5th IEEE International Conference on Models and Technologies for Intelligent Transportation Systems, Naples, Italy

1/2017 Evaluating the impact of centralized goods receiving stations at urban retail malls, Transportation Research Board (TRB) 96th annual meeting, Washington DC, US

10/2016 Data stories from urban loading bays, Volvo Research and Educational Foundation (VREF) Conference on Urban Freight, Chalmers University of Technology, Gothenburg, Sweden

10/2015 Economics of urban consolidation, Urban Freight and Behavior Change conference, University of Roma Tre, Rome, Italy

Invited Talks & Lectures

9/2024 Guest lecture on Beyond the Last-Mile: Shaping Tomorrow's City Logistics, Royal Institute of Technology (KTH), Sweden

6/2024 The case for cargo e-bikes for last-mile deliveries in North America, Home Delivery World USA

6/2024 Biking the Goods, Bike/Ped Working Group quarterly meeting, Federal Highway Administration (FHWA)

3/2024 Biking the Goods, PeopleForBikes lecture webinar series, recording

11/2023 Biking the Goods, C40 Urban Freight Workgroup

11/2023 Understanding delivery drivers' curb behaviors, Open Mobility Foundation (OMF)

11/2023 Biking the Goods, Data Academy Webinar Series, Washington State Department of Transportation Planning (WSDOT)

6/2023 Guest speaker on Cargo bikes and the need for urban logistics hubs in North America, Organization for Economics Co-operation and Development (OECD), Paris (France)

6/2023 Digitizing curbside management, panel presentation with Seattle DOT and the District Department of Transportation, 2023 Parking and Mobility Conference & Expo, International Parking Management Institute, Fort Worth (TX), US

4/2023 Panel presentation: growing green transport across the delivery sector, UrbanismNext Conference, Portland (OR), US

4/2023 Panel presentation: overcoming the data gap and building knowledge about urban freight patterns, UrbanismNext Conference, Portland (OR), US

3/2023 Guest lecture on Biking the last mile, Center for Transportation and Logistics (CTL), Massatchussets Institute of Tech. (MIT), Research Webinar

2/2023 Guest presentation, Seattle Department of Trasnportation headquarter, Seattle, US

9/2022 How to advance and support e-cargo bikes in your city, C40 Curbside Management Working Group virtual meeting

10/2021 The Urban Freight Lab: A strategic public-private partnership, XXIII Scientific meeting of the Italian Society of Transport Economics and Logistics (SIET), Roma Tre University, Rome (Italy)

7/2021 Seattle's curbside parking information system, an initiative by the Urban Freight Lab, Southern Alberta ITE Urban Goods Movement Committee, Alberta (Canada) recording

4/2021 Sustainable urban freight, guest lecture, New & emerging tech in transportation graduate course, Portland State University, Portland (OR), US

4/2021 Sustainable urban freight, guest lecture, sustainable mobility graduate course, Southern Methodist University, Dallas (TX), US

9/2020 Can e-cargo bikes help chart a sustainable path forward for delivery? Transportation webinar series by Populus recording

6/2020 United Parcel Service (UPS) cargo bike pilot in Seattle, City of Seattle Freight Advisory Board meeting, Seattle (WA), US

6/2020	Challenges and solutions in delivering the last mile, Institute of Transportation Engineers (ITE) Educational Foundation Webinar
11/2019	Do commercial vehicles cruise for parking?, Talking Freight webinar of the Federal Highway Administration (FHWA) Office of Freight Management and Operations, US recording
11/2019	The cruising cost of parking for commercial vehicles in urban areas and how to cope with it, Engineering Systems and Design (ESD) Research Seminar, Singapore University of Technology and Design (SUTD), Singapore
5/2019	How are modern cities meeting new delivery demands? Urbanism Next Conference, University of Oregon, Portland (OR), US
2/2019	Modeling commercial vehicles parking choice in congested urban areas, Graduate seminar series, University of Washington Industrial & Systems Engineering, Seattle (WA), US
2/2017	Empirical analysis of freight movements at large urban freight traffic generators, Intelligent Transportation Systems Lab research seminar, Civil and Environmental Engineering Department, Massachusetts Institute of Technology (MIT), Cambridge (MA), US
7/2016	Data stories from urban loading bays, Future Urban Mobility Research Symposium, Singapore-MIT Alliance for Research and Technology, Singapore
6/2016	Technology and policy recommendations to improve the urban mobility system in Singapore, Seminar on the Future of Science, Technology and Policy in Singapore, National Singapore University, Singapore
6/2016	Collaborative urban logistics, Seminar at the Infocomm Development Authority of Singapore, Singapore
10/2015	Economics of urban consolidation, Graduate Research Seminar of the Civil and Environmental Engineering Department, University of Naples Federico II, Naples (Italy)

Service

Guest Editor	Special Issue “The curb Lane” in Transportation Research Part A: Policy and Practice. With: Prof. Anne Goodchild (UW), Prof. Susan Shaheen (UC Berkeley), Prof. Donald Shoup (UCLA), Prof. Andisheh Ranjabari (U Penn).
Reviewer	• Transportation Research Part A: Policy and Practice • Transport Policy • Transportation • European Transport Research Review • Transportation Research Record • Transport Reviews • Journal of Traffic and Transportation Engineering • Journal of Transport Geography • Research in Transportation Business & Management • Research in Transportation Economics • Journal of Management in Engineering • National Institute for Transportation and Communities (NITC) • University of Florida/STRIDE Center • IEEE ITS
Committees	• Freight Master Plan update (Portland Bureau of Transportation) • Milano Smart City Conference

Skills

Research methods	• Supervised and unsupervised statistical learning • Agent-based simulation (worked on the development of SimMobility Freight) • Choice modeling • Pilot project design (project managed several pilot projects at the UFL) • Geospatial data analysis and visualization • Design of Experiments and data collection protocols (I love designing and implementing innovative data collection mechanisms)
Research applications	• Urban logistics, last-mile deliveries • Curb space management • Behavioral mobility science • Multimodal freight systems, cargo e-bikes • Equity in transportation and logistics, food insecurty and food access
Programming	R, Python, Biogeme, Stata, Gurobi