Full Name: **Maryam Bostanara**

Date of Birth: 1994

Current Address: Sydney, Australia

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Education

- **Feb. 2020 – Present**: Ph.D. candidate in the school of Civil and Environmental Engineering at the University of New South Wales (UNSW), Sydney, Australia.
Supervisor: Professor Taha Hossein Rashidi

Thesis Topic: *"Urban Dynamics and Household Decisions: Advanced Statistical Methods in Relocation, Land Use, and Transport Planning" - Thesis submitted on 6 Nov 2023*

- **Sept. 2016 – Nov. 2018**: M.Sc. in Industrial Engineering–Systems Optimization at Sharif University of Technology, Tehran, Iran.

Total Average Grade 19.03 out of 20 (The second rank amongst the graduates). Thesis Topic: "An economic-financial model for response to earthquake in the conditions of uncertainty with a case study of an earthquake event in a small town"

- **Sept. 2012 – Sept. 2016**: B.Sc. in Industrial Engineering at Sharif University of Technology, Tehran, Iran.

Total Average Grade 18.48 out of 20 (The second rank amongst the graduates)

Work Experience

- **Jan. 2024 – Present**: Research Associate, Research Centre for Integrated Transport Innovation (rCITI), School of Civil and Environmental Engineering, Faculty of Engineering, University of New South Wales (UNSW), Sydney, Australia.
Working on Multiple Discrete-Continuous Extreme Value (MDCEV) models under the supervision of Professor Taha Hossein Rashidi.
- **Nov. 2023 – Jan. 2023**: Research Assistant, Research Centre for Integrated Transport Innovation (rCITI), School of Civil and Environmental Engineering, Faculty of Engineering, University of New South Wales (UNSW), Sydney, Australia (Casual).

Working on Multiple Discrete-Continuous Extreme Value (MDCEV) models under the supervision of Professor Taha Hossein Rashidi.
- **Nov. 2023 – Present**: Research Assistant, School of Biotechnology and Biomolecular Sciences, University of New South Wales (UNSW), Sydney, Australia (Casual).

Collaborating on a project to model and predict HCC recurrence, developing survival analysis models under the supervision of Associate Professor Fatemeh Vafaee.
- **Apr. 2019 – Mar. 2020**: Research Assistant, Research Centre for Integrated Transport Innovation (rCITI), School of Civil and Environmental Engineering, Faculty of Engineering, University of New South Wales (UNSW), Sydney, Australia (Casual).

Working on statistical, optimization projects under the supervision of Professor Taha Hossein Rashidi. Main project: "A dynamic relocation decision-making framework for modelling household members' interactions"

Teaching and Marking Experience

- May. 2021 – Present: Demonstration and Marking, University of New South Wales (UNSW), Sydney, Australia.
  - CVEN9405 Urban Transport Planning [Demonstration | Term 3, 2023]
  - CVEN9415 Transport Systems Part 2 [Demonstration and Marking | Term 2, 2022]
  - ENGG1400 Engineering Infrastructure Systems [Demonstration and Marking | Term 2, 2022]
  - CVEN9405 Urban Transport Planning [Demonstration and Marking | Term 3, 2021]
  - CVEN4701 Planning Sustainable Infrastructure [Marking | Term 3, 2021]
  - ENGG1400 Engineering Infrastructure Systems [Demonstration and Marking | Term 2, 2021]
  - CVEN3401 Sustainable Transport and Highway Engineering [Demonstration | Term 2, 2021]
  - CVEN4701 Planning Sustainable Infrastructure [Marking | Term 2, 2021]

- **Sep. 2014 – Jun. 2018**: Teaching Assistant (demonstrator), Sharif University of Technology, Tehran, Iran.
  - Manufacturing methods (I) [4 semesters]
  - Manufacturing methods (II) [1 semester]
  - Advanced manufacturing methods [1 semester]
  - Operations research (I) [3 semesters]
  - Operations research (II) [4 semesters]
  - Quality Control [2 semesters]
  - Automation [1 semester]
  - Computer Information Systems (CIS) [1 semester]
  - Plant layout [1 semester]

Publications

- **Bostanara, M.**, Rashidi, T. H., Khan, N. A., Auld, J., Ghasri, M., & Grazian, C. (2023). The co-determination of home and workplace relocation durations using survival copula analysis. Computers, Environment and Urban Systems, 99, 101898.
- **Bostanara, M.**, Rashidi, T.H., Auld, J. and Ghasri, M., 2021. A comparison between residential relocation timing of Sydney and Chicago residents: A Bayesian survival analysis. Computers, Environment and Urban Systems, 89, p.101659.
- **Bostanara, M.**, Siripanich, A., Ghasri, M., & Rashidi, T., 2024. Sydney's Residential Relocation Landscape: Machine Learning and Feature Selection Methods Unpack the Whys and Whens. Journal of Transport and Land Use, Accepted.
- Najmi, A., **Bostanara, M.**, Gu, Z. and Rashidi, T.H., 2021. On-street parking management and pricing policies: An evaluation from a system enhancement perspective. Transportation Research Part A: Policy and Practice, 146, pp.128-151.
- **Bostanara, M.**, Siripanich, A., & Hossein Rashidi, T. (2023). Towards a more realistic model of residential relocation: DDCM's dynamic, future-oriented approach. In Australasian Transport Research Forum (ATRF 2023). Perth, Western Australia.
- **Bostanara, M.**, Siripanich, A., & Rashidi, T. A Realistic Framework for Modeling Residential Relocation Behavior Considering Past, Present, and Future Using DDCM: A Sydney Case Study. Cities Journal, Revision stage. Available at SSRN 4582667.

- An economic-financial model for response to earthquake in conditions of uncertainty with a case study of an earthquake event in a small town (M.Sc. Thesis, 2018).
- **Maryam Bostanara**, Nazi Farsayyad, Narges Mohammadi, Muhammad Muhammady, "Application of Decision Theory in the Enhancement of the Educational System of Iran", Journal of the Scientific Association of Industrial Engineering of the Sharif University of Technology, ISSN:1560-5221 (2017).

Presentations and conferences

- Bridging Time Horizons in Residential Relocation Decisions: A Dynamic Discrete Choice Modelling (DDCM) Approach, Accepted for presentation at the 8th International Choice Modelling Conference (**ICMC 2024**) in April 2024.
- Towards a more realistic model of residential relocation: DDCM's dynamic, future-oriented approach, oral presentation at Australasian Transport Research Forum (**ATRF 2023**) in November-December 2023.
- A Realistic Framework for Modelling Residential Relocation Behaviour Considering Past, Present, and Future Using DDCM: A Sydney Case Study, Poster presentation at the **2023 HILDA** Survey Research Conference in September 2023.
- A Realistic Framework for Modelling Residential Relocation Behaviour Considering Past, Present, and Future Using DDCM: A Sydney Case Study, Oral presentation at the Bridging Transportation Researchers (**BTR 5 - 2023**) conference.
- Machine Learning vs Conventional Specifications for Housing Relocation Decisions, Oral presentation at the World Conference on Transport Research Society 2023 (**WCTR 2023**) in July 2023 in Montreal, Canada.
- Interdependencies of Home and Work Relocation Durations, Poster presentation at **2023 TRB Annual Meeting** - Transportation Research Board.
- Bridging Decisions and Destinations: Advanced Computational Models for Household Decision-Making in Land Use and Transportation, Oral presentation at the fifth Annual Symposium of the Transport Research Association for NSW (**TRANSW-2023**) in November 2023.
- Machine Learning vs Conventional Specifications for Housing Relocation Decisions, Oral presentation at the fifth Annual Symposium of the Transport Research Association for NSW (**TRANSW-2022**) in November 2022.
- Interdependencies of Residential and Workplace Relocation Timing Decisions using a Copula-based Bayesian Survival Approach: Findings from Australia and US, Oral presentation at the fourth Annual Symposium of the Transport Research Association for NSW (**TRANSW-2021**) in November 2021.

Fields of Interest

- Data Analysis and visualization
- Statistical tools and econometrics
- Machine learning and deep learning
- Operations research and systems optimization
- Computer simulation
- Application of the above tools in transportation and land-use

Skills

- Teaching, collaboration, and leading
- **Programming:**
  R and Python
  Basic familiarity with VB.Net, C#.Net languages, and SQL
- **Software:** Access, STATA, SPSS, GAMS, Microsoft Project (MSP), Minitab, SolidWorks, Tableau, Adobe Photoshop, Microsoft Office, etc.

Voluntary Experience

- **Jun. 2017 – Apr. 2018**: Chair of the Scientific Association of the School of Industrial Engineering, Sharif University of Technology, Tehran, Iran (Volunteer experience).
  Major activities:
  • Holding a scientific conference named Industrial Engineering Route Conference (The Fourth Conference of Industrial Engineering held by the association)
  • Publishing the 54th issue of the Scientific Journal of Industrial Engineering
  • Organizing more than twenty workshops
  • Undertaking seven industrial visits
  • Organizing seven seminars and many more scientific events

Honours

- Recipient of Australian Government Research Training Program Scholarship (RTP) 2020-2023.
- Recipient of Women in Engineering Research Top Up Scholarship 2021-2023.
- Best research demonstration award in the fourth Annual Symposium of the Transport Research Association for NSW (TRANSW) in November 2021.
- The second rank amongst the graduates in my postgraduate program during 2016-2018.
- Reception of an honorary invitation from the National Elites Foundation of Iran for commencing a PhD program at the Sharif University of Technology in July 2018 (invitation declined).
- A top student selected by the School of Industrial Engineering at the Sharif University of Technology announced in December 2017.
- Reception of an honorary invitation from the Sharif University of Technology for commencing my postgraduate program (honourably exempted from taking the entrance examination) in September 2016 (invitation accepted).
- The second rank amongst the graduates in my undergraduate program during 2012-2018.
- A top student selected by the National Elites Foundation of Iran during 2014 – 2016

References

- Dr. Taha Hossein Rashidi, Associate Professor, School of Civil and Environmental Engineering, University of New South Wales (UNSW), Sydney, Australia
  Email: rashidi@unsw.edu.au
- Dr. Elnaz Irannezhad, Senior Lecturer, School of Civil and Environmental Engineering, University of New South Wales (UNSW), Sydney, Australia
  Email: e.irannezhad@unsw.edu.au
- Dr. Ali Najmi, Postdoctoral Researcher, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland
  Email: ali.najmi@epfl.ch