

MARIA GIANNOULAKI

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EDUCATION

- | | |
|---|-----------|
| University of Patras
<i>Department of Civil Engineering</i> <ul style="list-style-type: none">• Doctoral Program of Studies | 2020-2026 |
| University of Patras
<i>Department of Civil Engineering</i> <ul style="list-style-type: none">• Master's Degree Program "Resilient, Sustainable, and Intelligent Infrastructure Design" | 2019-2020 |
| University of Patras
<i>Department of Civil Engineering</i> <ul style="list-style-type: none">• Bachelor's Degree in Civil Engineering | 2014-2019 |

EXPERIENCE

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| Freelance Maps Data Operations Agent Cognizant via ACEOLUTION (Contractor for Google Maps) <ul style="list-style-type: none">• Perform data validation and quality assurance for Google Maps, ensuring accuracy and completeness of geographic information.• Collaborate with internal workflows to maintain high data standards and support efficient project delivery.• Contribute to enhancing the user experience of a major mapping platform through meticulous data operations. | 2025-Today |
| Researcher University of Patras
<i>Research & Development Project – Greece 2.0 National Recovery and Resilience Plan</i> <ul style="list-style-type: none">• Built traffic demand forecasting models• Processed and structured large mobility datasets• Applied statistical analysis to improve load prediction accuracy• Provided data-driven recommendations for infrastructure planning | 2024-2025 |
| PhD Candidate University of Patras
<i>C.Caratheodory Funding Program – University of Patras</i> <ul style="list-style-type: none">• Analyzed large-scale mobility datasets• Built predictive and behavioral models (regression, time-series, clustering) | 2020-2025 |

- Developed agent-based simulation models for system optimization
- Calibrated & validated models using real-world data
- Delivered scenario-based forecasting to support decision-making

Junior Manager of Scientific Project | CIVINET CY-EL

06/2020 – 09/2020

- Consultancy Support for the Municipality of Agios Dimitrios, Attica, in the development of its Sustainable Urban Mobility Plan (SUMP).
- Implementation of training/educational actions (WEBINARS)

TECHNICAL SKILLS

Analytics:

Regression | Time-Series | Clustering | Hypothesis Testing |
Simulation Modeling | Forecasting

Programming:

R | MATLAB | JavaScript | SQL (Foundational – Currently
Advancing)

SCIENTIFIC PAPERS

Giannoulaki, M., & Christoforou, Z. (2024). Pedestrian walking speed analysis: A systematic review. *Sustainability*, 16(11), 4813. <https://doi.org/10.3390/su16114813>

Christoforou, Z., **Giannoulaki, M.**, Gioldasis, C., & Yannis, G. (2023). Cycling under the influence of alcohol and other drugs: An exploratory analysis. *Transportation Research Part F: Traffic Psychology and Behaviour*, 99, 204-220. <https://doi.org/10.1016/j.trf.2023.10.026>

Bazaki, I., Gioldasis, C., **Giannoulaki, M.**, & Christoforou, Z. (2022). Transit Quality of Service Assessment Using Smart Data. *Future Transportation*, 2(2), 414-424. <https://doi.org/10.3390/futuretransp2020023>

BOOK CHAPTERS

Gioldasis, C., Kalakoni, A. M. P., Christoforou, Z., Liappi, G., & **Giannoulaki, M.** (2022, August). Mobility Patterns in the Campus of the University of Patras. *Smart Energy for Smart Transport. Lecture Notes in Intelligent Transportation and Infrastructure (LNITI)* Electronic ISSN 2523-3459 https://doi.org/10.1007/978-3-031-23721-8_76

CONFERENCE PROCEEDINGS

Giannoulaki, M., Christoforou, Z., Moraiti, E. (2026). Public Transport Use and Challenges Faced by Immigrants, Refugees, and Roma Populations. In: McNally, C., Carroll, P., Martinez-Pastor, B., Ghosh, B., Efthymiou, M., Valantasis-Kanellos, N. (eds) *Transport Transitions: Advancing Sustainable and Inclusive Mobility. TRAconference 2024. Lecture Notes in Mobility*. Springer, Cham. https://doi.org/10.1007/978-3-031-88974-5_118

Giannoulaki, M., Christoforou, Z., & Roumeliotis, S. (2025). Mesoscopic Analysis for Optimizing Passenger Flow Focusing on Elders in Transit Facilities. *Procedia Computer Science*, 257, 537-544.

Christoforou, Z., Kallianiotis, A., Athanasatos, A., **Giannoulaki, M.**, Roumeliotis, S., Gioldasis, C. (2026). Development of an E-scooter Simulator. In: McNally, C., Carroll, P., Martinez-Pastor, B., Ghosh, B., Efthymiou, M., Valantasis-Kanellos, N. (eds) *Transport Transitions: Advancing Sustainable and Inclusive Mobility*. TRAconference 2024. Lecture Notes in Mobility. Springer, Cham. https://doi.org/10.1007/978-3-031-88974-5_16

Giannoulaki, M., & Christoforou, Z. (2024). *Designing elder-friendly public transport systems: A case study at AIA Railway and Metro Station*. CETRA 2024 Proceedings. DOI: <https://doi.org/10.5592/CO/cetra.2024.1727>

Giannoulaki, M., Christoforou, Z., Gioldasis, C., & Roumeliotis, S. (2023). An experimental study on pedestrian movement in railway station. *Transportation research procedia*, 72, 2526-2533.

CONFERENCE PRESENTATIONS

Transportation Research Board (TRB) Annual Meeting 2026:

1. Mesoscopic Modeling of Pedestrian Flows in Transit Stations Accounting for Passenger Age

Maria Giannoulaki and Zoi Christoforou

Transportation Research Board (TRB) Annual Meeting 2025:

2. Urban Transit Infrastructure and Elder Passenger Needs: Identifying necessary adjustments for inclusive design and operations.

Maria Giannoulaki and Zoi Christoforou

11th International Congress on Transportation Research – ICTR2023:

1. Risk Analysis of Western Greece road network using the Highway Safety Manual (HSM).

Maria, Giannoulaki, Zoi Christoforou, Maria Aikaterini Manoura, Christos Gioldasis

10th International Congress on Transportation Research – ICTR2021:

1. Validation of the applicability of a Social Force based model in the study of interactions between e-scooters and pedestrians.

Georgios Kapousi, Christos Gioldasis, **Maria Giannoulaki**, Yeltsin Valero and Zoi Christoforou

2. Transit Quality of Service Assessment Using Smart Data.

Ioanna Bazaki, Christos Gioldasis, **Maria Giannoulaki** and Zoi Christoforou

AWARDS

**1st Prize - Panhellenic Architectural Design Competition Heraklion, Crete, Greece,
2022**

*“Bioclimatic regeneration of Eleftheria Square and the wider area of the eastern
entrance to the historic center of the city”*

Role: Traffic Consultant