Shahriar Iqbal Zame

💼 Ph.D. Researcher (TSE, TUM)

🎓 M.Sc. in Transportation Systems, TUM

📇 My Profile   ✉ shahriar.zame@tum.de   🔗 LinkedIn

Summary

I am a Research Associate and PhD candidate at the Technical University of Munich (TUM), Chair of Transportation Systems Engineering. My research on the DFG-funded project "Shaping E-Roads Efficiency for Freight Automation" (SEE-FAr) leverages agent-based simulations to advance freight transport electrification and automation. By exploring innovative charging solutions my work aims to significantly improve sustainability, reduce emissions, and enhance economic efficiency in long-haul logistics. With an M.Sc. in Transportation Systems from TUM, my expertise includes agent-based modeling, optimization, choice modelling and large-scale simulations, alongside practical experience with cutting-edge tools such as MATSim, High Performance Computing, and advanced programming (Python, Java, R). Driven by a passion for innovation and sustainable urban mobility, I am dedicated to contributing impactful research that addresses contemporary urban challenges through innovation and transformative approaches.

Education

2025 – Present   🔖 **Research Associate & Ph.D. Candidate**,
Technical University of Munich (TUM), Munich, Germany
Project: *Shaping E-roads Efficiency for Freight Automation (SEE-FAr)*
A joint initiative of TUM's TSE and BOKU's IVe
Supervisors: Prof. Dr. Constantinos Antoniou, Prof. Dr. Yusak Susilo

2021 – 2024   🔖 **M.Sc. in Transportation Systems**,
Technical University of Munich (TUM), Munich, Germany
CGPA 1.6/4.00 (best 1.0 out of 4.0)
Thesis: *UAM siting considering capacity and land use in Munich* (*Graded 1.0*)
Supervisors: Prof. Dr. Constantinos Antoniou, M.Sc. Hao Wu
Johannes B. Ortner-Stiftung Award for outstanding Master Thesis

2014 – 2017   🔖 **B.Sc. in Civil and Environmental Engineering**
Islamic University of Technology, Bangladesh
CGPA 3.37/4.00 (best 4.0 out of 4.0)
Thesis: *Comparing Comfort in Public Transports in Dhaka, Bangladesh*

Experience

2017 – 2022   🔖 Research Engineer, Icon Engineering Services Ltd., Bangladesh
Projects: Dhaka Metro Rail Project, First Dhaka Elevated Expressway, Hazrat Shahjalal International Airport Terminal 3 Expansion Project
Responsibilities: Structural Quality Control of 750+ foundations, Managed Commercial Website Development, Published Corporate brochure & Multimedia Content.

Research Publications

4   A sustainable multi-objective framework for multi-phased, capacitated vertiport siting with land use integration.
Hao Wu, **Shahriar Iqbal Zame**, Tao Guo, Qing-Long Lu, Constantinos Antoniou

Communications in Transportation Research, Volume 5, 2025.

3 Data-driven vertiport siting: A comparative analysis of clustering methods for Urban Air Mobility.
Tao Guo, Hao Wu, **Shahriar Iqbal Zame**, Constantinos Antoniou
Journal of Urban Mobility, Volume 7, 2025

2 Evidence-based decision-support framework for UAM siting, considering land use factors.
Shahriar Iqbal Zame, Hao Wu, Tao Guo, Wei-Chieh Huang, Constantinos Antoniou
Transportation Research Symposium 2025, Rotterdam, May 25 - 28, 2025.

1 Developing and testing robust data-driven car-following models.
Filippos Adamidis, **Shahriar Iqbal Zame**, Constantinos Antoniou
IET Intelligent Transport Systems, Under review.

Skills

Modeling	Agent-based transport simulation (MATSim and extensions), macroscopic 4-step travel demand modeling, multimodal network modeling for urban mobility systems.
Optimization	Multi-objective optimization, routing and scheduling (e.g., TSP, VRP), heuristic and algorithmic approaches for transport and infrastructure planning.
Programming & AI	Java (OOP), Python, R, MATLAB, SQL, Shell scripting, Pandas, NumPy, Scikit-learn, Machine learning, Transfer learning.
Technical Tools	High-performance computing (Linux, Slurm), geospatial toolchains (QGIS, PostGIS, GDAL), scripting and version control (Python, Bash, Git), development environments (Jupyter, VS Code).
Research	Peer-reviewed academic writing, systematic literature reviews, large-scale transport simulations, interdisciplinary research, LaTeX typesetting.
Leadership	Innovation mindset, project leadership, stakeholder engagement, intercultural teamwork, ethics.
Creative Engagement	Photography, video editing, website management, brochure and article design; visual storytelling for public outreach.

Awards & Creative Projects

2025	🔖	Johannes B. Ortner Foundation Prize for Outstanding Young Researcher at TUM.
		Recognized for outstanding Master's thesis; prize of €1,500, awarded at the TUM Awards Dinner.
2023	🔖	Bicycling from Kufstein to Trento (300+ km in 3 days)
2017	🔖	*CycleDhaka: Champion of Inter-University Film Fest (Cennovation, IUT)*
2016	🔖	*Volunteering: Light of Hope (Children Education)*
2015	🔖	*Volunteering: It's Humanity Foundation (Fighting Poverty)*