

Mahsa Sahebdel

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EDUCATION

MS/PhD in Computer Science <i>University of Massachusetts Amherst</i>	2021 - Present <i>Current GPA: 3.70/4.0</i>
M.Sc. in Information Technology Engineering, Networked Systems <i>University of Tehran</i>	2016 - 2019 <i>GPA: 3.5/4.0</i>
B.Sc. in Information Technology Engineering <i>Azarbaijan Shahid Madani University</i>	2011 - 2015 <i>GPA: 3.5/4.0</i>

RESEARCH INTERESTS

Online decision making, Carbon-intelligent computing, Reinforcement learning

PUBLICATIONS

- Near-Optimal Emission-Aware Online Ride Assignment Algorithm for Peak Demand Hours**
Ali Zeynali, Mahsa Sahebdel, Noman Bashir, Ramesh K. Sitaraman, Mohammad H. Hajiesmaili - (Under review)
- LEAD: Towards Learning-Based Equity-Aware Decarbonization in Ridesharing Platforms**
Mahsa Sahebdel, Ali Zeynali, Noman Bashir, Prashant Shenoy, Mohammad H. Hajiesmaili - (Under review)
- A Safe Exploration Strategy for Model-free Task Adaptation in Safety-constrained Grid Environments**
Erfan Entezami, Mahsa Sahebdel, Dhawal Gupta - ICDS 2024 (Accepted)
- A Holistic Approach for Equity-aware Carbon Reduction of Ridesharing Platforms**
Mahsa Sahebdel, Ali Zeynali, Noman Bashir, Prashant Shenoy, Mohammad H. Hajiesmaili - ACM e-Energy 2024 (Published)
- Data-driven Algorithms for Reducing the Carbon Footprint of Ride-sharing Ecosystems**
Mahsa Sahebdel, Ali Zeynali, Noman Bashir, Mohammad H. Hajiesmaili, Jimi Oke - ACM e-Energy 2023 (Published)
- TeleCrowd: A Crowdsourcing Approach to Create Informal to Formal Text Corpora**
Vahid Masoumi, Mostafa Salehi, Hadi Veisi, Golnoush Haddadian, Vahid Ranjbar, Mahsa Sahebdel - arXiv 2020

SKILLS

Programming Languages: Python, Java, C++, C#, R
Deep Learning: TensorFlow, PyTorch, Keras, Scikit-learn
Web Programming: HTML, CSS, JavaScript, Django
Database Management: SQL, MySQL, Oracle, PostgreSQL
Data Analysis: Data visualization, Gurobi, Numpy, Pandas

PROJECTS

- E2-RideKit:** A comprehensive toolkit enhancing ridesharing datasets with emissions and equity information. [GitHub]
- LingoLand:** An Android application for English language learning, incorporating the 6D gamification design framework and the Bartle player model.
- KalKal:** A Telegram inline game that challenges knowledge of people.

EXPERIENCE

- SOLAR Lab (Sustainability, Optimization, Learning, and Algorithms Research)** Jan 2023 - Present
- Working on emission analysis, decarbonizing, and optimizing transportation systems.
- COIN Lab (Computer and Information Network)** 2016 - 2019
- Worked on Persuasive Gamification on Learning Platforms.
- Emita (powered by Manarayka), Data Scientist and research Intern** Jan 2020 - Dec 2020
- Generated air pollution reports and conducted statistical and numerical air pollution modeling.
 - Data analysis and traffic modeling for real-time traffic management, bottleneck identification, and the reduction of congestion.
- Bahar E-Commerce Services, Backend Developer Intern** Dec 2018 - Dec 2019
- Developed an extensive customer loyalty management system, leveraging the Odoo ERP platform.

MENTORING AND OTHER SERVICES

- Reviewer for KDD 2025**
- Academic Services at University of Massachusetts, Amherst** Jan 2024
- Mentored three undergraduate students in a 7-week research volunteer program.*
- Treasurer, IGSA at University of Massachusetts, Amherst** July 2023 - Present

HONORS AND AWARDS

- Common Good Fellowship** Jan 2023
- Associated with UMass Amherst*
- Top 10 ranked teams in ICT Programming Challenge 5 among 75 teams** Jul 2020
- SharifICT*
- Full scholarship of the Networks and Systems summer school** Aug 2018
- Tehran Institute for Advanced Studies (See Certificate)*
- Ranked 2nd among 33 teams in the second NovinTech BootCamp Event** Jun 2018
- NovinTech Accelerator*
- Ranked 101st among 2000 students** Sept 2016
- In National Graduate Entrance Examination in Information Technology Engineering*

SELECTED COURSEWORK

Graduate Courses

Neural Networks, Advanced Methods in HCI, Probabilistic Models, Machine Learning and Pattern Recognition, Advanced Algorithms, Complex Networks, Simulation and Modeling, Reinforcement Learning, Database Design and Implementation

Undergraduate Courses

Artificial Intelligence, Algorithms Design, Data Structure, Applied Probabilities and Statistics