Mahsa Sahebdel

github.com/mahsasahebdel mahsahebdel.com LinkedIn Google Scholar msahebdelala@umass.edu

Education

MS/PhD in Computer Science 2021 - Present
University of Massachussetts Amherst *Current GPA: 3.70/4.0*

M.Sc. in Information Technology Engineering, Networked Systems 2016 - 2019
University of Tehran *GPA: 3.5/4.0*

B.Sc. in Information Technology Engineering 2011 - 2015
Azarbaijan Shahid Madani University *GPA: 3.5/4.0*

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, PostgresSQL

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