Hadi Hajari

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LinkedIn
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EDUCATION

University of Pittsburgh   **Sept 2016-May 2021**

- PhD in School of Computing and Information (**GPA: 3.9/4**)
  Dissertation: A Distributed Approach for Robust, Scalable, and Flexible Dynamic Ridesharing

University of Tehran

- Master of Science in Geospatial Information Systems (GIS)   **Sept 2008-Feb 2011**
  Thesis: Enhancing Database's Spatial Data Model for Moving Objects
- Bachelor of Science in Surveying Engineering   **Sept 2004-Aug 2008**
  Project: Applications of Cellular Automata in Urban Growth Simulation and Evaluation

PROFESSIONAL EXPERIENCE

Data Scientist and Chief R&D Officer: SiahKaman   **Jan 2024-present**

Conducting research to design and develop CRM software, analyzing data using machine learning techniques for sale's prediction and customer segmentation, collaborating with sales and marketing sections to develop effective strategies for improving the organization's business.

GIS Consultant: Alpha Lab-Pittsburgh   **Aug 2017-Apr 2018**

Worked on PathVu project to develop a mobile application for navigating people with disabilities on sidewalks in the city of Pittsburgh.

Database Administrator: Sigma Co   **Sept 2015-June 2016**

Created always-on availability group and performance tuning in MS SQL SERVER, hands-on experience on computer networks, DNS servers, and active directory.

Network Administrator: GIS Laboratory at University of Tehran   **Feb 2012-Mar 2013**

Managed and maintained computer servers, PCs, Printers, and computer network

Computer Programmer: Tadbir co   **May 2011 – Aug 2011**

Developed a web GIS application for Toll Department of Iran; Developed a mobile application for managing road bridges.

EXTERNAL REVIEWER in Journal of Transaction in GIS

TECHNICAL SKILLS

Programming languages: Java, SQL, PLSQL, Familiar with C++, Python, R, Matlab, PHP
Database: Oracle and Oracle Spatial, Postgres and PostGIS, Microsoft SQL Server, Mongodb
GIS Software: ArcGIS, Quantum GIS
Operating Systems: Microsoft Windows, Ubuntu, Centos, MacOS
Operating System Virtualization: Docker
Optimization: Integer and linear programming, IBM CPLEX
Computer Networks: Familiar with DNS servers, Active directory, Firewall

SELECTED COURSEWORK

Machine Learning: Supervised and unsupervised learning, probabilistic graphical models, familiar with reinforcement learning and OpenAI Gym
Algorithms: Design and analysis of algorithms
Information Retrieval: large text indexing and retrieval, evaluate IR system
Database: Data warehouse, OLAP, distributed database, concurrency control
Statistics: Multivariate analysis, ridge regression, lasso regression, PCA

PERSONAL STATEMENT

As a PhD graduate in the field of Information Science, my research has been particularly focused on mathematical optimization, artificial intelligence, multi-agent systems, and spatial database systems with applications in intelligent transportation systems, resource allocation, scheduling, and public health among others. Outside academia, my past experience as a software engineer and GIS consultant in industry helps me critically and practically think and solve real-world problems. I am eager to employ my research and technical skills in a professional environment.

TEACHING ASSISTANCE

- Database Systems: Fall 2016
- Computer Graphics: Spring 2017
- Machine Learning: Fall 2018 and Spring 2019
- Social Computing: Fall 2019
- Advanced Topics in Database Systems: Spring 2020
- Network Science && Data Visualization: Fall 2020
- Advanced Topics in Database Systems && Database Management: Spring 2021

PUBLICATIONS

Journals:

- H. Hajari: **A Decentralized Approach for Robust, Scalable, and Flexible Dynamic Ridesharing** (under review)

- H. Hajari, J. Salerno, LS. Weiss, HA. Karimi, and DD. Salcido (2020): **Simulating Public Buses as a Mobile Platform for Deployment of Publilcly Accessible Automated External Defibrillators**, Prehospital Emergency Care.
- S. Srinivasan, J. Salerno, H. Hajari, L. Weiss, and D. Salcido (2017): **Modeling a Novel Hypothetical Use of Postal Collection Boxes as Automated External Defibrillator Access Points**, Resuscitation.
- H. Hajari and F. Hakimpour (2014): **A Spatial Data Model for Moving Object Databases**, International Journal of Database Management Systems.

Conferences:

- M. Syzdykbayev, H. Hajari, and HA. Karimi (2019): **An Ontology for Collaborative Navigation among Autonomous Cars, Drivers, and Pedestrians in Smart Cities**, 4th International Conference on Smart and Sustainable Technologies: SpliTech2019, IEEE.
- H. Hajari and HA. Karimi (2018): **A Method for Large-Scale Resource Allocation in Smart Cities**, 4th International Conference on Collaboration and Internet Computing, IEEE.

- H. Hajari and M. Delavar (2010): **Particle Swarm Optimization in Emergency Services**, International Society for Photogrammetry and Remote Sensing.