

Bahereh Hassanpour

Ph.D. in Computer Science

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Summary

Ph.D. in Computer Science specializing in Edge Computing and content placement networks, with a research focus on privacy-preserving techniques in Edge caching networks. Experienced in Statistics, Machine Learning, and Optimization. Committed to advancing research at the intersection of these domains to address emerging challenges and drive innovation in the field.

Education

University of Tehran

Computer Sciencee

GPA: 3.9 out of 4

2018 – 2024

Ph.D.

Dissertation Title: Analysis of Cache Content Placement in Edge Network

Khajeh Nasir Toosi University (KNTU)

Computer Engineering

GPA: 3.5 out of 4

2013– 2016

Master

Thesis Title: Sustaining the Efficiency of M2M Communications over LTE Networks by Load Estimation.

Shahid Beheshti University (SBU)

Computer Engineering

GPA: 3.2 out of 4

2008– 2012

Bachelor

Publications

Journals

- [Hassanpour, Seyedeh Bahereh](#), et al., "Privacy-PreservingEdge Caching: A Probabilistic Approach," *Computer Networks*, Vol. 226, **2023**.
- [Hassanpour, Seyedeh Bahereh](#), et al. "Context-aware Privacy Preservation in Network Caching: An information theoretic approach," *IEEE Communications Letters*, vol. 25, No.1, **2020**.
- [Hassanpour, Seyedeh Bahereh](#), et al. "DipEdge: A Decomposition-Based Iterative Approach for Privacy-Aware Edge Caching," *IEEE Transaction on Network Science and Engineering*, **2024** [Submitted].
- Sheshjavani, Abdollah Ghaffari, Khonsari, Ahmad, Shariatpanahi, Seyed Pooya, [Hassanpour, Seydeh Bahereh](#). "Hybrid Coded-Uncoded Caching in Multi-Access Networks with Non-uniform Demands," *Computer Networks*, **2024** [Under Review].

Conferences

- Silab, Mohammad Vatandoost, [Hassanpour, Seyedeh Bahereh](#), et al., "On skipping redundant computation via smart task deployment for faster serverless," *IEEE International Conference on Communications (ICC)*, **2022**.
- Dolati, Mahdi, [Hassanpour, Seyedeh Bahereh](#), et al., "DeepViNE: Virtual network embedding with deep reinforcement learning." *IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)*, **2019**.
- [Hassanpour, Seyedeh Bahereh](#), et al., "Hybrid coded caching in cellular networks with D2D-enabled mobile users," *International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, **2019**.
- [Hassanpour, Seyedeh Bahereh](#), and Abdorasoul Ghasemi. "Online load estimation for efficient random access of machine type communications in LTE networks," *Iranian Conference on Electrical Engineering (ICEE)*, **2016**.
- [Hassanpour, Seyedeh Bahereh](#), and et.al., "Age-Aware Edge Caching and Multicast Scheduling Using Deep Reinforcement Learning." *International Wireless Communications and Mobile Computing Conference (IWCMC)*, 2024 [Submitted].

Teaching Experience

Lecturer, Department of Computer Science,Babol Noshirvani University of Technology (BNUT), 2021 –2022

- Web and Mobile Programming*,
 - Taught a comprehensive course, covering topics such as HTML, CSS, JavaScript, React, and mobile app development frameworks.

Chief Teaching Assistant (CTA), Department of Computer Science, University of Tehran, 2019 – 2022.

- Assumed leadership responsibilities under the supervision of Dr. Khonsari for the following courses:
 - Performance Evaluation of Computer Networks, 2019-2022*
 - Advanced Computer Networks, 2021-2022*
 - Computer Networks, 2020-2021*
- Coordinated Teaching Assistants to ensure effective course delivery and facilitated communication between students and instructors.
- Developed quizzes, homework assignments, coding exercises, and design projects to reinforce course materials and assess student understanding.

Lab Instructor, Department of Computer Science, K.N. Toosi University, 2015 – 2016.

- Electronic Digital Lab
 - Providing hands-on instruction and guidance to students.

Skills

Python

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Numpy, Pandas, Scikit-learn, Tensorflow, Dask, Parquet

Matlab

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Data Analysis

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Data Visualization

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Machine Learning

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Deep Learning modeling

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Apache Spark

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SQL

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MySQL, SQLite

Certifications

What is data Science

IBM Skills Network

Deep Learning via Pytorch

Schischool

OpenAI's Data Analytics Bootcamp

University of Tehran

References

Dr. Ahmad Khonsari

Ph.D. Supervisor

Dr. Masoumeh Moradian

Research Collaborator

Dr. Mahdi Dolati

Research Collaborator

Languages

English

Advanced

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