

Mohammad Hosseini

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Education

- **Ph.D. in Computer Engineering** (2014-2019) (GPA: 18.0/20)
Sharif University of Technology
Thesis: “Improving Payload Attribution Systems for Network Forensics Applications”
Advisor: Prof. Amir Hossein Jahangir
- **M.Sc. in Computer Engineering** (2012-2014) (GPA: 18.4/20)
Sharif University of Technology
Thesis: “Design and Implementation of a High-speed Network Equipment Tester”
Advisor: Prof. Amir Hossein Jahangir
- **B.Sc. in Computer Engineering** (2008-2012) (GPA: 17.32/20) (Top-ranked student)
University of Isfahan
Final project: “Design and Implementation of an FPGA-based Image Processing System”
Advisor: Prof. Kamal Jamshidi

Research Interests

- Computer networks
- Cloud networking
- Programmable networks

Professional Experience

- Assistant Professor, Faculty of Computer Science and Engineering, Shahid Beheshti University (2023-now)
- Postdoc researcher, Institute for Research in Fundamental Sciences (IPM) (2022-2023)
- Postdoc researcher, Sharif University of Technology, (2019-2020)
- Senior embedded developer, Samim Co., Tehran, Iran. (2013-2023)
- Technical head of some industrial projects at Sharif University of Technology (2014-2018)

Publications

❖ Journal papers

- **M. Hosseini**, S. Darabi, A. Jahangir, A. Movaghar "Yuz: Improving Performance of Cluster-Based Services by Near-L4 Session-Persistent Load Balancing", IEEE Transactions on Network and Service Management, 21.2, pp. 1929-1942, 2023.
- A. Hesam Mohseni, A. H. Jahangir, **M. Hosseini**, "Toward a comprehensive subjective evaluation of VoIP users' quality of experience (QoE): a case study on Persian language", Multimedia Tools and Applications, 80.21, pp. 31783-31802, 2021.
- **M. Hosseini**, A.H. Jahangir, M. Kazemi, "Digesting Network Traffic for Forensic Investigation Using Digital Signal Processing Techniques", IEEE Transactions on Information Forensics and Security, 14.12, pp. 3312-3321, 2019.
- **M. Hosseini**, A.H. Jahangir, "An Effective Payload Attribution Scheme for Cybercriminal Detection Using Compressed Bitmap Index Tables and Traffic Downsampling", IEEE Transactions on Information Forensics and Security, 13.4, pp. 850-860, 2018.

❖ Conference papers

- **M. Hosseini**, S. Darabi, P. Eugster, M. Choopani, A.H. Jahangir, "Rethinking Web Caching: An Optimization for the Latency-Constrained Internet", 23th ACM Workshop on Hot Topics in Networks (HotNets '24), pp. 326-334, 2024.
- **M. Hosseini**, S. Darabi, M. Nakhjiri, P. Eugster, "Uncovering Secrets of Microbursts in Datacenter Network Traffic", 20th International Conference on Network and Service Management (CNSM), 2024.
- S. Darabi, M. Sadrosadati, N. Akbarzadeh, J. Lindegger, **M. Hosseini**, J. Park, J. G. Luna, O. Mutlu, H. Sarbazi-azad, "Morpheus: Extending the Last Level Cache in GPU Systems with Idle GPU Cores' Resources", 55th ACM/IEEE International Symposium on Microarchitecture (MICRO), 2022.
- **M. Hosseini**, A.H. Jahangir, S. Daraby, "Session-persistent Load Balancing for Clustered Web Servers without Acting as a Reverse-proxy", 17th International Conference on Network and Service Management (CNSM), 2021.

Teaching Experience

- Cloud and programmable networks
- Distributed systems
- Microprocessor
- Computer Networks
Faculty of Computer Science and Engineering, Shahid Beheshti University.
- Advanced Topics on Information Technology (Software-Defined Networking)
Computer Engineering Department, Sharif University of Technology. (Spring 2021-2022).
Co-taught with Prof. Ali Movaghar.
- Digital Systems Design
Computer Engineering Department, Sharif University of Technology.

Projects

- Performance tester for 10G network equipment (2016, Sharif)
- Real-time network traffic recorder/player (2014, Sharif)
- SD/HD/3G video switch, Electrical/Optical Video Distributer and Converter, Video Control Panel, (2013-2022, Samim)

Honors

- Funded by Iran's National Elites Foundation (2016 scholarship)
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- Distinguished satire award in Talkhand nationwide student festival on satire (2015)
- Ranked 2nd in the 1st nationwide CANSAT contest (2012)
- Ranked 1st among undergraduate students (2012)
- 10th Khwarizmi distinguished award (2008)