

Alireza Farshin

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🎂 Birthday: June 18th, 1992

Research Interests

Network Function Virtualization, Computer Networks & Systems

Education

- 2017–Present **Licentiate Degree, Information and Communication Technology**, *KTH Royal Institute of Technology*, Kista, Sweden.
Thesis: Realizing low-latency Internet Services via low-level Optimization of NFV Service Chains
Supervisors: [Professor Dejan Kostić](#) and [Professor Gerald Q. Maguire Jr.](#)
- 2015–2017 **M.Sc. Electrical Engineering - Digital Electronic Circuits**, *Amirkabir University of Technology*, Tehran, Iran.
Thesis: Resource Allocation in Software-Defined Networks for 5G Applications
Supervisor: [Dr. Sharifian](#)
- 2010–2015 **B.Sc. Electrical Engineering - Electronics**, *Sharif University of Technology*, Tehran, Iran.
Thesis: Design of Exoskeletal System for Wrist and Forearm
Supervisor: [Dr. Jahed](#)

Publications

- [C1] **A. Farshin**, A. Roozbeh, G. Q. Maguire Jr., and Dejan Kostić. Make the Most out of Last Level Cache in Intel Processors. *EuroSys'19*, March 2019.
DOI: [10.1145/3302424.3303977](https://doi.org/10.1145/3302424.3303977)
- [J1] **A. Farshin**, S. Sharifian. A modified knowledge-based ant colony algorithm for virtual machine placement and simultaneous routing of NFV in distributed cloud architecture. *The Journal of Supercomputing - Springer*, March 2019.
DOI: [10.1007/s11227-019-02804-x](https://doi.org/10.1007/s11227-019-02804-x)
- [J2] **A. Farshin**, S. Sharifian. A Chaotic Grey Wolf Controller Allocator for Software Defined Mobile Network in 5th Generation of Cloud based Cellular Systems. *The Journal of Computer Communications - Elsevier*, May 2017.
DOI: [10.1016/j.comcom.2017.05.003](https://doi.org/10.1016/j.comcom.2017.05.003)
- [J3] **A. Farshin**, S. Sharifian. MAP-SDN: A Metaheuristic Assignment and Provisioning SDN Framework for Cloud Datacenters. *The Journal of Supercomputing - Springer*, March 2017. DOI: [10.1007/s11227-017-2001-2](https://doi.org/10.1007/s11227-017-2001-2)

Patents

- [P1] A. Roozbeh, **A. Farshin**, G. Q. Maguire Jr., and Dejan Kostić. Last Level Cache (LLC) aware Memory Allocation. USA Provisional Patent Application, WO - PCT/SE2018/050676, Jun. 2018.
- [P2] A. Roozbeh, **A. Farshin**, G. Q. Maguire Jr., and Dejan Kostić. Application agnostic slice-aware memory optimization at run-time. USA Patent Application, WO - PCT/SE2018/051311, Dec. 2018.
- [P3] A. Roozbeh, **A. Farshin**, G. Q. Maguire Jr., and Dejan Kostić. Dynamic slice selection function. USA Provisional Patent Application, US 62/805,552, Feb. 2019.

Honors and Awards

- 2015 **Ranked 107th** among more than 20,000 participants in Iran's universities entrance exam for M.Sc. degree
- 2010 **Ranked 46th** among more than 460,000 participants in Iran's universities entrance exam for B.Sc. degree
- 2010 Honored member of [Iran's National Elites Foundation \(INEF\)](#)
- 2010 Recipient of the grant for undergraduate studies from [Iran's National Elites Foundation \(INEF\)](#) for outstanding academic success
- 2007 Best Piano Player of Arasbaran Cultural House in 3rd District of Tehran, Iran

Teaching Experience

- Spring-2019 Teaching Assistant for Software Defined Networking (SDN) and Network Functions Virtualization (NFV) (IK2220), [Professor Dejan Kostić](#)
- Fall-2018 Teaching Assistant for Communication System Design (IK2200), [Professor Dejan Kostić](#)
- Fall-2017 Teaching Assistant for Communication System Design (IK2200), [Professor Dejan Kostić](#)
- Fall-2016 Teaching Assistant for "Bio-Inspired Algorithms" course, [Dr. Sharifian](#)

Skills

- Languages English (Fluent), Persian (Native), Swedish (Novice)
- Test Scores **TOEFL iBT**: 105/120
Reading (29/30), Listening (29/30), Speaking (20/30), Writing (27/30)
GRE General: 318/340
Verbal Reasoning (150/170), Quantitative Reasoning (168/170)
Analytical Writing (3.5/6)
- Programming C/C++, PYTHON, MATLAB, JAVA, ASSEMBLY-X86, Verilog
- Languages SWIFT, HTML/CSS, OPENMP, MPI, BASH
- Tools DPDK, FastClick, Perf, LLVM, Mininet, POX, Wireshark, ns2, ns3, OPNET, Quartus, Modelsim, Proteus, Cadence, Pspice, Hspice, \LaTeX , Microsoft Office
- OS Linux, Windows, Mac

Online Courses [Developing iOS 8 Apps with Swift](#), Stanford University, Prof. Hegarty, iTunes U
Others Oracle Database SQL Fundamental, Network+(Certificate from [Sematec](#))

Work Experience

Dec'15-June'16 **Portal Specialist**, *MOBILE TELECOMMUNICATION COMPANY OF IRAN (MCCI)*, Tehran, Iran.

Portal and Mobile Application Supervisor:

- eCare Application: My MCI Application for [iOS](#) and [Android](#)
- eSales Website: [eVoucher](#)

Fall-2013 **CafeYab**, *CO-FOUNDER AND CEO*, Developing [iOS](#) and [Android](#) application for finding near Coffee Shops.

Summer-2013 **Internship**, *INFORMATICS SERVICES CORPORATION (ISC)*, Tehran, Iran.

- Porting a RF Unit Controller from PIC-16F877A to AtMega64A and testing the new module
- Designing a Remote-Control System with HM-T and HM-R FSK Modules
- Reading about Switching Power Supply Topologies :
 - Buck-Converter
 - Boost-Converter

Summer-2012 **Summer Intern**, *INFORMATICS SERVICES CORPORATION (ISC)*, Tehran, Iran.

Doing research on Expansion Buses and Digital Data Transfer

Hobbies

Playing Piano and Cello, Squash, Swimming, Chess

Philosophy, Reading Novels, Watching Movies and TV Series