

Amin Mosayyebzadeh

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Education

**2018-
Present** PhD, Computer Engineering
Boston University
Advisor: Dr. Orran Krieger

2015-2018 Master of Science, Computer Science (Systems)
University of Rochester

2008-2011 Master of Science, Computer Engineering (Computer Architecture)
Sharif University of Technology, Tehran, Iran.
Thesis Title: Task Mapping for 3D NoC with Torus Topology

2003-2008 Bachelor of Science, Computer Engineering
Amir Kabir University of Technology, Tehran, Iran.
Project Title: Implementation of SIP Protocol in Embedded Linux for PowerPC

Honors

- Distinguished Computer Engineering Fellowship, Boston University, 2018

Research Interests

- Cloud Computing
- Distributed Storage Systems
- Distributed Systems
- Operating Systems, Multicore Processors and Parallel Programming
- Cybersecurity

Current Research

- Distributed Storage Systems, Mass Open Cloud, Boston University, 2018 - present

Publications

- M. Hajkazemi, V. Aschenbrenner, M. Abdi, E. Kaynar, **Amin Mossayebzadeh**, O. Krieger, P. Desnoyers, “Beating the I/O bottleneck: a case for log-structured virtual disks,” European Conference on Computer Systems (EuroSys) 2022.
- M. Abdi, **Amin Mosayyebzadeh**, M. Hajkazemi, T. Nogues, A. Turk, Orran Krieger, Peter Desnoyers, “A Community Cache with Complete Information,” USENIX Conference on File and Storage Technologies (FAST) 2021.
- **Amin Mosayyebzadeh** et al., “Supporting Security Sensitive Tenants in a Bare-Metal Cloud,” USENIX Annual Technical Conference (ATC) 2019.
- M. Abdi, **A. Mosayyebzadeh**, M. Hajkazemi, A. Turk, O. Krieger, P. Desnoyers, “Caching in the Multiverse,” 11th USENIX Workshop on Hot Topics in Storage and File Systems (HotStorage '19), 2019.
- **Amin Mosayyebzadeh** et al., “A Secure Cloud with Minimal Provider Trust,” 10th USENIX Workshop on Hot Topics in Cloud Computing (HotCloud '18), 2018
- **Amin Mosayyebzadeh** et al., “Thermal and Bandwidth aware Task mapping for 3D NoC,” Elsevier Computers and Electrical Engineering Journal, 2016

Research Internship

- Mass Open Cloud (MOC), Rafik B. Hariri Institute for Computing and Computational Science & Engineering, Boston University, MA, USA 2017-2018 (Project: Elastic Secure Cloud Infrastructure)

Research Projects

- Design and developing a Hybrid Cloud Caching System, MOC, BU, 2019 - present
- Modeling and developing a Workload generator for Cloud Storage Systems, MOC, BU, 2020 - present
- Design and developing a Caching System for a single Datacenter, MOC, BU, 2019 - 2021
- Design and developing a Caching System for Analytical Frameworks (Kariz), MOC, BU, 2019 - 2020
- Developing a elastic secure bare metal cloud architecture and implementing a prototype of it (Bolted), MOC, BU, 2017 - 2018
- Design and model of a fuzzy logic based system for analyzing thermal and power statistics of nodes on a 3D NoC, VLSI Lab, CE Department, Sharif University of Technology, Tehran, Iran, 2009-2011

Teaching Assistantship

- Cloud Computing, ECE Department, Boston University, Fall 2019 & Spring 2020
- Operating Systems, ECE Department, Boston University, Fall 2018
- Parallel and Distributed Systems, CS Department, University of Rochester, Spring 2017
- Computer Networks, CS Department, University of Rochester, Fall 2016
- Computer Architecture, CE Department, Sharif University of Technology, Spring 2010
- Logic Circuits, CE Department, Sharif University of Technology, Fall 2009

Work Experience

2013-2015 SAMIM Rayaneh Co., Tehran, Iran
Embedded Systems Design Engineer

- Design and development of Linux based OS for an ARM cortex A8 processor based Embedded System
- Developing Linux embedded drivers for Freescale imx6Q processor:
 - 1080P, 720P HD format video interface
 - SPI SLAVE interface
- Design and implementation of an embedded multimedia application
- Design and implementation of an embedded network based monitoring application
 - Socket programming and network programming
 - System programming
 - Firmware programming for communicating with UART, LCD, CAN and SPI interfaces

2012-2013 Danesh Farazan Pardanic Co., Tehran, Iran
Embedded Systems Design Engineer

- Development of a Linux OS for an ARM cortex A8 processor (Xilinx DM3730) based Embedded System
- Design and implementation of a Linux embedded driver for Xilinx GPMC bus

2009-2012 SiNA Microelectronics Co., Tehran, Iran
Hardware and Embedded Systems Design Engineer

- Linux based system and firmware Programming based on LEON processor
- Design and development of a Linux embedded driver for a hardware based IPSec
- Design, development and implementation of Software for PCI based Embedded Security Systems
- Design and implementation of Firmware for Microcontroller based Embedded System
- Design and development of an ARM based software for configuration of a Software Defined Radio (SDR)
- Design and development of HTML/CGI based Graphical User Interface for a Networking Device

Professional Activities

- Artifact Evaluation Committee, OSDI 2020

Technical Skills

Programming Languages:	C, C++, Python
Parallel Programming:	Pthread, MPI, OpenMP, CUDA C
Embedded Processors:	ARM, PowerPC, Spark
Microcontrollers:	ATMega and ATXmega series
HDLs:	VHDL
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