

Education

Sep'15–Present



University of California, Riverside

Ph.D. Computer Science

M.Sc. Computer Science (2017), GPA: 3.91/4.0

Advisor: Professor **Nael Abu-Ghazaleh**

Research Area: Computer Architecture

- GPU Architecture/Compiler Solution Design
- Efficient GPU Utilization for Machine Learning Purposes
- Architecture Support for Security

Relevant Courses: Advanced Computer Architecture, GPU Architecture & Programming, Compiler Construction, High Performance Computing, Machine Learning

Sep'10–Aug'15



Sharif University of Technology, Tehran, Iran

B.Sc. Computer Engineering (2015)

Thesis: Implementation of Two-level RR Warp Scheduling and Dynamic Warps on GPGPUSim

Advisor: Professor **Hamid Sarbazi-Azad**

Publications

- *Improving GPU Performance through Operand Coalescing (Conceptual title due to double blind review)*
Hodjat Asghari Esfeden, F. Khorasani, H. Jeon, D. Wong, and Nael Abu-Ghazaleh. **Submitted to ASPLOS 2019.**
- *In-Register Parameter Caching for Dynamic Neural Nets with Virtual Persistent Processor Specialization.*
Farzad Khorasani, Hodjat Asghari Esfeden, Nael Abu-Ghazaleh, and Vivek Sarkar.
The 51st Annual IEEE/ACM International Symposium on Microarchitecture, October 2018.
- *RegMutex: Inter-Warp GPU Register Time-Sharing*
Farzad Khorasani, Hodjat Asghari Esfeden, Amin Farmahini-Farahani, Nuwan Jayasena, and Vivek Sarkar.
The 45th International Symposium on Computer Architecture (ISCA), June 2018. *Acceptance rate: 16.9%*
- *RIC: Relaxed Inclusion Caches for Mitigating LLC Side-Channel Attacks*
Mehmet Kayaalp, Khaled N. Khasawneh, Hodjat Asghari Esfeden, Jesse Elwell, Nael Abu-Ghazaleh, Dmitry Ponomarev, and Aamer Jaleel. The 54th Design Automation Conference (DAC), June 2017.

Experience

- **Instructor** Winter 2019
CS161: Design and Architecture of Computer Systems, UC Riverside.
- **Teaching Assistant**
Design and Architecture of Computer Systems, Intermediate Data Structures and Algorithms — UC Riverside Spring 2018
- **Training and Research Assistant**
Institute for Research in Fundamental Sciences (IPM.), Tehran, Iran. Apr. 2014 - June 2015
- **Undergraduate Research Assistant**
High Performance Computer Architecture & Networks (HPCAN) Lab, Sharif University of Technology, Iran. 2014-2015
- **Teaching Assistant**
Fundamentals of Electrical and Electronical Circuits, Numerical Methods — Sharif University of Technology, Iran 2012-2015

Awards, Honors, and Scholarships

- **Dean's Distinguished Fellowship**, UCR, 2015
- **Ranked 17th** among more than 100,000 applicants in the nationwide university entrance exam for undergraduate students in Mathematics, 2010.
- **Ranked 40th** among more than 100,000 applicants in the nationwide university entrance exam for undergraduate students in Pure English, 2010.

Technical Skills

- **Languages:** C, C++, Python, Assembly, Verilog HDL
- **Software and Design Tools:** Soot, Git, Latex, Synopsys EDA Toolchain
- **Architectural Simulators:** GPGPUSim, Gem5, ModelSim, CACTI, M-Sim