

Sabiha Tajdari

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Research Interests

Hardware Accelerator, Quality of Service, Data Storage and Memory System, High-Performance Computing, Embedded

Education

- **University of Virginia**, Virginia, United States of America Aug. 2022- Present
Doctor of Philosophy (Ph.D.), Computer science, **Overall GPA: 3.94/4**
Advisor: Prof. Sandhya Dwarkadas
- **Sharif University of Technology**, Tehran, Iran Sep. 2018- Feb. 2021
Master of Science (M.Sc.), Computer Engineering, **Overall GPA: 4/4**
Adviser: Prof. Hossein Asadi
- **Isfahan University of Technology**, Isfahan, Iran Sep. 2014- Sep. 2018
Bachelor of Science (B.S.), Computer Engineering, **Overall GPA: 4/4**
Adviser: Prof. Majid Nabi

Work Experience

- **HPDS Corporation**, Tehran, Iran Mar. 2021 - Sep. 2021
R&D Hardware Engineer
Main Responsibilities are:
Evaluate Performance of Storage Systems; Server Assembly; Choose, Test and Verify the Hardware According to the Price and Specifications; Research and Development of I/O Caching Solutions for Storage Systems.
- **Avionics Institute**, Isfahan, Iran Jun. 2017- Sep. 2017
Hardware Engineering Intern.
Worked on ARINC 429 Avionics Bus, Implementing Receiver and Transmitter on FPGA Spartan6-Posedge Board

Technical Skills

- **Software:** Xilinx ISE Design Suite, Proteus, CodeVisionAVR, Oracle VM VirtualBox, \LaTeX , Git, Intel Pin Tool, DRAMSim, Intel VTune™ Profiler, DuckDB
- **Programming and HDL:** C/C++, Verilog, ARM & AVR Microcontrollers C Language, Assembly, CUDA
- **Devices:** SuperMicro Servers, FPGAs, Arduino, ARM, Texas Instruments (TI) Wireless Sensor Nodes
- **OS:** Linux, Windows, Contiki OS and Cooja Simulator
- **Storage Backend:** Linux MD RAID, MegaRAID

Publications

- **DBPIM: Join Query Acceleration Using PIM**,
Sabiha Tajdari, Anastasia Ailamaki, Sandhya Dwarkadas
Submitted to International Symposium on High-Performance Computer Architecture (HPCA), 2025
- **HashMem: PIM Architecture for accelerated Hashmap Performance**,
Akhil Shekar, Morteza Baradaran, Sabiha Tajdari, Kevin Skadron,
Published in DOSSA workshop in the IEEE International Symposium on Computer Architecture (ISCA), 2023

Honors and Awards

- **Ranked 1 in Cumulative GPA of the Computer Engineering**, Isfahan university of technology, Isfahan, Iran
Sep. 2014- Sep. 2018

Relevant Coursework

- **Software Security Testing**, UVA
- **Hardware Accelerators**, UVA
- **Advanced Computer Architecture**, UVA
- **Machine Learning**, UVA
- **SP, Machine Learning and Control**, UVA
- **Advanced Storage Systems Design**, SUT
- **Hardware Security and Trust**, SUT
- **Testability**, SUT
- **On-Chip Communications**, SUT
- **Evaluation Crisis in CS**, UVA
- **Networked Embedded Systems**, IUT
- **Embedded Systems**, IUT
- **Data Communications and Computer Networks**, IUT
- **Digital Systems Design**, IUT
- **Fault Tolerant Systems Design**, SUT
- **FPGA**, IUT
- **LPIC 101,102**, Self Study