

# Javad Saberlatibari

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Resident Status: US Green Card Holder

## Research Experience

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- **Distributed Systems Design**
- **Reliable Embedded Systems Design**
- **FPGA & Microcontroller-Based Design**

## Education

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- **University of California, Riverside (UCR)**
  - Ph.D. candidate, Computer Science, 2021-Now
  - Area: Software and hardware co-design in distributed data centers, based on the RDMA protocol.
- **Sharif University of Technology (SUT)**
  - M.Sc. Computer Engineering, 2020
  - Major: Computer Architecture
- **Ferdowsi University of Mashhad (FUM)**
  - B.Sc. Computer Engineering, 2017
  - Major: Computer Hardware Engineering

## Work Experience

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- Graduate Student Researcher (GSR), Department of Computer Science and Engineering, University of California, Riverside, 2021-Now.
- Embedded Systems Research Lab (ESRL Lab), Department of Computer Engineering, Sharif University of Technology, 2017-2020.
- Dependable Distributed Embedded Systems Lab (DDEmS Lab), Department of Computer Engineering, Ferdowsi University of Mashhad, 2014-2017.

## Teaching Experience

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- **University of California Riverside**
  - Machine Organization and Assembly Language Programming, Fall 2024
- **Sharif University of Technology (SUT)**
  - Low Power Design, 2019
  - Digital System Design (CAD, FPGA, Verilog), 2019
  - Numerical Analysis, 2017
- **Ferdowsi University of Mashhad (FUM)**
  - Engineering Mathematics, 2014-2016
  - Computer Architecture, 2014-2015

## Technical Skills

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- **Programming:** Python, C/C++, Java, CUDA, VHDL, HLS, Verilog, HDL, Assembly (MIPS, X86)
- **Protocols and Systems:** Clusters: UCR HPC and ETHZ-HACC, Networks protocols: TCP-IP and RDMA
- **Hardware Boards:** FPGAs: Xilinx (Alveo), Altera, Microcontrollers: ARMs

- **Hardware Tools:** IDEs: Codevision, Keil, EMU86, Xilinx Isim, Modelsim, Aldec ActiveHDL, Proteus, Synthesize Tools: Vivado, Vitis
- **Simulators:** Gem5, McPAT
- **Other Software:** Microsoft Office, Microsoft Visual Studio

## Involved Projects

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- **SW/HW Synthesis for RDMA Replicated Data Types, 2021-Now**
  - Advisor: Dr. Mohsen Lesani and Dr. Philip Brisk
- **RDMA Replicated Data Types, 2021-Now**
  - Advisor: Dr. Mohsen Lesani
- **Reliability-Aware Energy Management for Heterogeneous Multicore Embedded Systems, 2017-2020**
  - Advisor: Dr. Alireza Ejlali

## Publications

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- E. Chan, J. Saber-Latibari, and M. Lesani, "Convergence and Integrity for Optimistically Replicated Objects," PODC'25 (The 44th ACM Symposium on Principles of Distributed Computing), (Ready to Submit).
- J. Saber-Latibari, P. Yuvaraj, M. Lesani, and P. Brisk, "SW/HW Synthesis for RDMA Replicated Data Types," OSDI 2025: The 19th USENIX Symposium on Operating Systems Design and Implementation (Under Review).
- F. Houshmand, J. Saber-Latibari, and M. Lesani, "RDMA Replicated Data Types," PLDI'22 (ACM SIGPLAN Conference on Programming Language Design and Implementation).
- H. Sobhani, S. Safari, J. Saber-Latibari, and S. Hessabi, "REALISM: Reliability-aware energy management in multi-level mixed-criticality systems with service level degradation," Journal of Systems Architecture, 2021.
- S. Yari-Karin, A. Sahraee, J. Saber-Latibari, M. Ansari, N. Rohbani, and A. Ejlali, "A Comparative Study of Joint Power and Reliability Management Techniques in Multicore Embedded Systems," Proc. of the 3rd Int'l of the CSI Symposium on Real-Time and Embedded Systems and Technologies (RTEST), 2020.
- J. Saber-Latibari, M. Ansari, P. Gohari-Nazari, S. Yari-Karin, A. Mahdi Hosseini Monazzah, and A. Ejlali, "READY: Reliability- and Deadline-Aware Power-Budgeting for Heterogeneous Multi-core Systems," IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (Tcad), 2020.
- M. Ansari, J. Saber-Latibari, M. Pasandideh, and A. Ejlali, "Simultaneous Management of Peak-Power and Reliability in Heterogeneous Multicore Embedded Systems," IEEE Transactions on Parallel and Distributed Systems (TPDS), 2019.
- M. Ansari, M. Pasandideh, J. Saber-Latibari, and A. Ejlali, "Meeting Thermal Safe Power in Fault-Tolerant Heterogeneous Embedded Systems," IEEE Embedded Systems Letters, 2019.

## Services

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- IEEE Transactions on Green Communications and Networking (TGCN) - Reviewer (2021-present)

## Honors

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- CS Department Fellowship Award, University of California, Riverside, 2021.
- Getting approval for US national interest waiver petition, 2022.