

Masoud Rahimi | Curriculum Vitae

Email: masoudrahimi1990@gmail.com

Google Scholar: [Profile](#)

GitHub: [Profile](#)

Research Interests

Digital System Design, Computer Architecture, Memory Architecture, Reconfigurable Systems, Embedded Systems, IoT Physical/Application Layer Design, Embedded AI.

Education

- **M.Sc. Electrical Engineering** (Minor: Digital Electronics) | Shahid Beheshti University | Aug 2013 – Jan 2016
Thesis: Design and Implementation of High-Speed SPI protocol in FPGA.
Courses: Reconfigurable hardware design with VHDL, VLSI system design, CMOS integrated circuits, ASIP design, Microprocessor application in industry.
Projects: 8bit 2's complement multiplier tree, Compact Analytical Threshold-Voltage Model of Nanoscale Fully- Depleted Strained-Si, Design a constant transconductance biasing circuit, Speech recognition design with ASIP.
GPA: 16.63 / 20
- **B.Sc. Electrical Engineering** (Minor: Telecommunications) | Islamic Azad University-Ray Branch | Sep 2008 – Apr 2013
Project: Design and implementation of an intelligent cooling system for electrical components based on micro-controller.
GPA: 15.40 / 20

Teaching Experience

DEM Electronics | C++ Fundamentals | Apr 2021 – Jun 2021
PNR | Embedded Linux System Design | Sep 2017 – Dec 2017
PNR | Python for network programming | Sep 2017 – May 2018
Khatam University| Reconfigurable Hardware Design | Jan 2016 – Mar 2016
Pishrobot | Basic electronics in robotics | Sep 2013 – Sep 2016

Publications

M. Rahimi, M. Eshghi, "Design and Implementation of SPI Display Controller Interface on FPGA," International Conference on New Research Findings in Electrical Engineering and Computer Science, Aug 2015. [COI Link](#)

M. Rahimi, M. Eshghi, "Design and Implementation of SPI Protocol with Display Controller Interface on FPGA," 23rd ICEE, May 2015 (submitted)

M. Rahimi, A. Hasanzadeh, "A Simple Constant Transconductance Bias Circuit for CMOS Analog Integrated-Circuits," 23rd ICEE, May 2015. (submitted)

Honors

2nd place in Seasonal Online Robotics STEAM CUP Competitions | 2016 | Korea
Referee | 1st – 2nd International Robotics STEAM CUP Competitions | Aug 2015-16 | Iran – Korea
Referee | 7th – 8th National Educational Robotics Competitions | Aug 2013-14 | Iran

Embedded Systems and C++ | RANKING IN THE TOP 25% | Oct 2021 | [Certification ID](#)

Python | RANKING IN THE TOP 10% | Oct 2021 | [Certification ID](#)

Technical Skills

- Programming/Hardware Description Languages; C, C++, Python, VHDL.
- Embedded System Design; Hardware Design, Embedded Linux, Firmware, RTOS, Communication Protocol Design.
- IoT Product Design; Device Design, Communication Protocol, User Interface.
- Desktop Application: Cadence Virtuoso, Xilinx ISE, Altium Designer.
- Misc. Technologies; Yocto Project, ARM Mbed, Docker, Jira.

Work Experience

- [DEM Electronics](#), Tehran | Embedded System Engineer | Jan 2021 – Oct 2021
Project manager, Firmware engineer. Develop Software-Defined Radio (SDR) platforms.
- [PNR](#), Tehran | Software Developer | Aug 2016 – Dec 2020
Embedded software developer; Python developer.
- [Safir Telecom](#), Tehran | *Embedded Software Engineer (Part-Time)* | Oct 2017 - Jan 2019
Embedded software developer; VOIP systems (Linphone/Asterisk), Linux kernel/driver development.
- [Pishrobot](#), Tehran | *Electrical Engineer (Part-Time)* | Sep 2013 - Sep 2016
Electrical engineer, Robotics teacher.

References

- Mohammad Eshghi | Director of thesis research | Associate Professor | Faculty of electrical engineering, Shahid Beheshti University, Iran | m-eshghi@sbu.ac.ir
- Babak Mazloom-Nezhad Maybodi | Associate Professor | Faculty of electrical engineering, Shahid Beheshti University, Iran | b-mazloom@sbu.ac.ir
- Masoud Ataei | Assistant Professor | Faculty of electrical and computer engineering, Islamic Azad University-Ray Branch, Iran | masoud_ataei@iausr.ac.ir

Languages

- Persian: Native
- English: Advanced (TOEFL 109)