

AMIRALI ABDOLRASHIDI

<http://www.engr.ucr.edu/~aabdolrashidi>

EDUCATION

University of California at Riverside, Riverside, CA Sep 2015 – Present
Ph.D. Student, Computer Science, GPA: 3.9/4
Supervised by Prof. Daniel Wong

New York University Polytechnic School of Engineering, Brooklyn, NY May 2014
Master of Science, Electrical Engineering, GPA: 3.7/4
Thesis title: “Neural Spike Processing On Reconfigurable Hardware”
Supervised by Prof. N. Sertac Artan

Sharif University of Technology, Tehran, Iran Jul 2012
Bachelor of Science, Electrical Engineering
Area of Concentration: Digital Systems
Thesis title: “Design and Implementation of an Automatic Programmable Spin Coater”
Supervised by Prof. M. Fardmanesh

SKILLS

Programming	C/C++,	Visual C++,	CUDA,	Verilog,	VHDL,	Assembly x86,	Java,	HTML
Applications	Visual Studio,	MATLAB,	NetBeans,	Xilinx ISE,	Quartus,	ModelSim		
Others	Windows,	Linux,	LaTeX,	Microsoft Office				

NOTABLE PROJECTS

Implementing data dependency awareness in GPUs Jul – Nov 2016
○ Used **C++** to modify GPGPU-Sim to manage dependencies among GPU thread blocks to **improve GPGPU performance by 45%**.

LLVM compiler block and edge profiling Mar – Apr 2016
○ Used **C++** in LLVM to profile number of blocks, edges and loops in an arbitrary program

Implementation of two-level round robin warp scheduling and dynamic warps on GPGPU-Sim Nov – Dec 2015
○ Used **C++** to modify the source code of GPGPU-Sim, specifically its warp scheduling mechanism, to increase performance.

A compact AES-256 encryption/decryption module on FPGA with graphic interface Apr 2015
○ Used **Visual C++** to create the software interface to control and transfer data to FPGA remotely;
○ Used **VHDL** to design the stages of AES-256 on hardware and interact with the PC interface.

Developing a sequence memory game for Android Mar 2015
○ Learned and used **Java** to create a game for Android 2.3+ in which the user has to remember and repeat an expanding sequence of patterns.

Low-area streaming image processor Apr – May 2013
○ Used **VHDL** to design the processing elements and a part of the external memory controller to load and save processed pixels.

An automatic programmable spin coater (B.S. thesis) Dec 2011 – May 2012
○ Developed the software for the system’s **PIC** chip using **C**;
○ Used **Visual C++** to design a GUI which can communicate with the device via RS-232.

An optical spectrum analyzer with the precision of 0.01nm using Brillouin scattering Jul – Aug 2010
○ Developed the **MATLAB** code to control and read data from a power-meter to measure the intensity of all frequencies in the spectrum of light within optical fibers with a **0.01nm** accuracy

TEACHING EXPERIENCE

University of California Riverside, Riverside, CA

Teaching Assistant, CS100 (Software Construction) Sep – Dec 2016
○ Supervised 40 students in 8 lab assignments regarding code patterns such as strategy, iterator, etc.

Teaching Assistant, EE217 (GPU Architecture) Sep – Dec 2016
○ Graded CUDA coding assignments for over 40 students

New York University Tandon School of Engineering, Brooklyn, NY

Teaching Assistant, *Digital Logic & State Machine Design*

Sep 2013 – May 2014

- Supervised about 80 students performing 6 experiments and a final project

Teaching Assistant, *Introduction to VLSI*

Jan – May 2014,

- Participated in designing and grading homework and lab assignments for over 100 students
- Revised the lab tutorials

Jan – May 2013

COURSES TAKEN & MASTERED

Computer Architecture	GPU Architecture	Operating Systems
FPGA & Reconfigurable Systems	Computer Graphics	Compilers
Synthesis of Digital Systems	Computer Vision	High-Performance Computing
VLSI & VLSI Testing	Real-time Embedded Systems	Algorithms

PUBLICATIONS

Minaee, S., Abdolrashidi, A., Wang, Y., “*Iris Recognition Using Scattering Transform and Textural Features*,” Signal Processing and Signal Processing Education Workshop (SP/SPE), IEEE, 2015.

Minaee, S., Abdolrashidi, A., Wang, Y., “*Screen Content Image Segmentation Using Sparse-smooth Decomposition*,” 49th Asilomar Conference on Signals, Systems and Computers, IEEE, 2015.

Minaee, S., Abdolrashidi, A., “*Highly Accurate Palmprint Recognition Using Statistical and Wavelet Features*,” Signal Processing and Signal Processing Education Workshop (SP/SPE), IEEE, 2015.

Minaee, S., Abdolrashidi, A., “*Multispectral Palmprint Recognition Using Textural Features*,” Signal Processing in Medicine and Biology Symposium (SPMB), IEEE, 2014.

ADDITIONAL INFORMATION

Awards & Achievements:

Graduate of NODET High School (National Organization for Development of Exceptional Talents), Iran	Sep 2001 – Jun 2008
Ranked 79 out of over 317,000 (top 0.03%) in the national university examination, Iran	Jul 2008
Admitted into Sharif University, the top engineering school in Iran	Aug 2008
2nd place in Senior Undergraduate Project Competition, Sharif University	Jun 2012

Languages | English (Fluent), Persian (Native), Spanish (Basic), Arabic (Basic)