

SALMA MIRZA

5 Diane Drive, Apt 2,

Belchertown, MA 01007

Tel: (603) 401 8830

Email: smirza83@gmail.com

Webpage: <http://www-unix.ecs.umass.edu/~smirza>**EDUCATION**

University of Massachusetts Amherst	MS ECE	08/09
Mumbai University	BE	06/05

RELEVANT GRADUATE COURSES

VLSI Design Principles, Synthesis & Verification of Digital Systems, Fundamentals of Solid State Electronics, Independent Study on NanoPLAs, Introduction to Cryptography, Applied Cryptography, Trustworthy Computing, Hot Topics in Information Security, Algorithms, Fault Tolerant Systems

MASTERS' THESIS

Thesis Topic: Scalable, Memory-Intensive Scientific Computing on Field Programmable Gate Arrays
 Research Advisor: Prof. Russell Tessier, Reconfigurable Computing Group at UMass Amherst

PROFESSIONAL EXPERIENCE

Coop Engineer, Advanced Micro Devices, Boxborough, MA *Jan 08 – Aug 08*

- Deep sub-micron semi-custom circuit design using standard cells
- Study RTL architecture and convert to gate verilog format or schematics
- Identify control and data paths and optimize critical signals
- Logic Equivalence check between RTL and gate level netlist
- Place cells to optimize route lengths
- Analyze setup, hold, edge rate and timing failures by modifying logic and placements
- Automatic routing and debugging LVS errors and DRC violations
- Analyze signal and power electromigration, local heating and noise
- Write PERL scripts to automate quality control and communication of results

Graduate Intern, UMass Amherst*Oct 06 – Dec 07, Sept 08 - Present*

- Systems administrator for the Student Union Server
- Device file and user structure for organizations using the server
- Enforce data security and privacy
- Purchase, plan and document inventory of Student Government Organizations
- Assist clients in the set-up, maintenance and support of computers & servers

International Student Orientation at UMass Amherst*Summer 07***Lecturer, Mumbai University***Jan 06 – May 06*

- Lectured on Mechatronics to senior year electrical engineering students
- Set up the Mechatronics Sensors Lab

TECHNICAL SKILLS

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- **EDA Tools**
 Cadence: Virtuoso Design Suite, Schematic editor, Layout Editor, Conformal LEC
 Synopsys: Design Compiler, Hspice
 Mentor Graphics: Caliber DRV
 - **Programming Languages**
 C, Structural Verilog, RTL Verilog, Perl, TCL

PROJECTS

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- Study Implementation of ECC on an RFID Tag with some computing capability
 - Error-tolerant Dynamic Voltage Scaling using Razor Latches in Custom CMOS.
 - Creating a physical key using PUF circuits to secure private data on a public network

PROFESSIONAL AFFILIATIONS

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- Society for Women in Engineering: <http://www.swe.org>
 - Reconfigurable Computing Group at UMass Amherst: <http://www.ecs.umass.edu/ece/tessier/rcg/>