

# Muhammad Faisal Iqbal

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- Interests** Computer Architecture, Programming, RTL design.
- Education**
- Master of science, Computer Engineering May 2009  
The University of Texas at Austin  
GPA: 3.71/4.0
  - Bachelor of Science, Electronic Engineering(Honors) May 2003  
GIK Institute of Engineering Science and Technology, Pakistan.  
GPA: 3.73/4.0
- Courses** Computer Architecture, Operating Systems, Parallel Computer Architecture, Super-scalar processor architecture, Compilers, Data Mining, Engineering Programming Languages, Generic Programming and the STL, VLSI-I, VLSI-II, Synthesis of Digital Systems, Analog IC Design
- Experience**
- Summer Intern (Vixs System Inc. Austin, TX) June 2008 – August 2008
- Developed a cycle accurate model for a multiformat video encoder in C++
- Design Engineer(Marine Systems Pvt Ltd. Pakistan) Jan 2004 – Dec 2006
- Work invloved developing systems based on Xilinx FPGAs, TigerSharc DSP using Verilog and C
- Projects**
- Designed, implemented and synthesized a pipelined architecture which in Verilog to support a subset of MIPS ISA. Studied size/delay trade-offs involved in synthesis.
  - Modeled, simulated and synthesized a Synchronous Serial Port using Synopsis. Integrated the SSP with and ARM processor using wishbone interface.
  - Built a file system in JAVA with one-level directory structure and page replacement policy.
  - Added thread synchronization to a multithreaded web server using locks and transactions.
  - Programmed an event driven simulator in C++ to simulate different lifeforms. Used STL and object oriented concepts extensively.
  - Implemented a valarray container in C++ which supported lazy evaluation of expressions.
  - Investigated the use of hardware verification techniques to debug C programs.
- Publications**
- J.H. Siddiqui, M.F. Iqbal and D. Chiou, "Parallel Assertion Processing Using Memory Snapshots", Workshop on Unique Chips and Systems, 2009.
  - M.M. Ahmed, N. Ahmed, K.S. Chaudhry, M.F. Iqbal, " Estimation of Intrinsic Small Signal Parameters of GaAs MESFET from DC Measurements", IEEE International Multi-Topic Conference (INMIC) 2001, Pakistan.
- Awards & Activities**
- Fellowship awarded by Higher Education Commision of Pakistan,2007.
  - Talent Scholarship awarded by Ministry of Science and Technology of Pakistan, 2000.
  - Scholarship awarded by Ministry of Education of Pakistan for first position in board, 1999.
  - Gold medal awarded by Board of Intermediate and Secondary Education, 1999.
- Skills**
- Languages:** C/C++, JAVA, Motorola 68000 assembly.
- CAD Tools:** HSPICE, Cadence design tools, Synopsys design compiler, Primetime.
- FPGA design:** Altera Max Plus II, Xilinx ISE, Silos, Veriwell, ModelSim.
- Mathematical computations:** Matlab, JMP.