

Farshad Ghanei

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RESEARCH INTERESTS

- Operating Systems
- Embedded Systems Architectures and Intelligent Embedded Systems
- Mobile Computing

EDUCATION

- State University of New York at Buffalo**, Buffalo, NY Aug. 2014 to Present
- 🎓 Ph.D, Computer Science and Engineering
Research: "**Accurate Accounting for Asynchronous Resources in Mobile Systems**" *under supervision of Prof. K. Dantu*
Total GPA: **3.85/4** - via 54 Credits
- State University of New York at Buffalo**, Buffalo, NY Aug. 2013 to Jun. 2015
- 🎓 M.Sc., Electrical Engineering
Total GPA: **3.82/4** - via 30 Credits
- Sharif University of Technology**, Tehran, Iran Sep. 2007 to Sep. 2012
- 🎓 B.Sc., Electrical Engineering
Total GPA: **15.39/20** - via 140 Credits
Thesis: "**Design and Implementation of a Bicycle Pedal Protractor and Synchronize its Signals with Signals Received from an Ultrasonography Machine**," *under supervision of Prof. B. Vosoghi Vahdat*

SKILLS

Computer Skills

- ⇨ *Programming Languages:* C/C++/C#, Python, Pascal, Delphi, Verilog, 8085/x86 Assembly.
- ⇨ *Technical Softwares:* Xilinx ISE, Max Plus II, Protel & Altium Designer, Matlab, Simulink, NS3 Simulator, Wireshark, Keil Microvision, Proteus, Quartus II, CodeVision AVR, OrCAD PSpice, NS3, Wireshark

Language Skills:

- Farsi (*Native*), English (*iBT score: 102/120, GRE General: V152/170 Q170/170 W3.5/6*)

HONORS AND AWARDS

- Awarded **Graduate Dean's Scholars Award** from Liesl Folks, dean of University at Buffalo, School of Engineering and Applied Sciences Apr. 2014
- **4 Year Fellowship Award** of the *National Elite Foundation*; which is awarded annually to those who have achieved the highest academic standing in the country among more than 1 million students. Sep. 2007 to Jun. 2011
- **Ranked 1st** in the state and qualified for the national level of *9th Khwarizmi Young Award for Designing and Building a Semi Finger Touch Display (Image Processing)* 2007
- Awarded **Dean's Honorary Award** from Dr. Sohrabpour, Former dean of Sharif University of Technology for exceptional performance in national university entrance exam Jun. 2008.
- **Ranked 50th** out of 350,000+ undergraduate applicants in the National Universities Entrance Exam for B.Sc. degree Jun. 2007
- **Semi-finalist** in **22nd** and **23rd** *National Mathematics Olympiad*, Tehran, Iran Sep. 2004-5
- **Semi-finalist** in **14th** and **15th** *National Informatics Olympiad*, Tehran, Iran Sep. 2004-5

- Selected Project with QBasic (Networked Snake/Nibbles Game) at Junior High School, Tehran, Iran 2004
- Ranked 9th Group in NODET Coding Competetion, Tehran, Iran 2003
- Earned **Black Belt Dan III** in *Nearu Martial Art*, Dedicated Instructor 2012 to Present

ACADEMIC BACKGROUND

➤ Selected Projects

- ✎ **OS-based Resource Accounting for Asynchronous Resource Use in Modern Mobile Systems (Current Research)**, Advisor: Prof. K. Dantu
- ✎ **Various FPGA Implementations on Xilinx Spartan 3AN and Altera DE2 FPGA Starter Kits (Playing Sound with Keyboard, Drawing Lines and Shapes on Monitor with Mouse, using Xilinx Microblaze Soft Processor to Implement Embedded Systems and Communicate with PC Through Serial Port)**, Advisors: Prof. M. Tabandeh, Prof. M. Shabany
- ✎ **Programming and Porting a Simple Calculator for Advantech PCM7231 Computer Board and Communicating With the Device Through Serial Port**, [Group Project], Advisor: Prof. M. Tabandeh
- ✎ **Designing and Implementing a Server-Client System on 2 PCs with Different Functions Using x86 Assembly**, [Group Project], Advisor: Prof. E. Sanaei
- ✎ **Designing and Building a Decorative Waterfall, Capable of Showing Different Characters and Shapes with Falling Water, Using Atmel Atmega16 Microcontroller**, [Group Project]
- ✎ **Designing and Implementing a Gas and Temperature Sensing Circuit, Using Xilinx XC9572-PC84 CPLD and Atmel Atmega16 Microcontroller**
- ✎ Various Programming Projects and Personal Projects in Junior High School, High School and Undergraduate Studies (Games, Applications, Sudoku Solver, etc.)

TEACHING EXPERIENCE

➤ Teaching Assistant

- ⇔ HDL Based Digital Design – Instructor: Prof. P. Meduri Spring 2014
- ⇔ HDL Based Digital Design – Instructor: Prof. P. Meduri Fall 2013
- ⇔ Microprocessor Systems Design – Instructor: Prof. E. Sanaei Spring 2012
- ⇔ Microprocessor Systems Design – Instructor: Prof. M. Tabandeh
(*As an Assistant in Lab.*) Spring 2012
- ⇔ Computer Architecture and Microprocessor – Instructor: Prof. E. Sanaei Fall 2011
- ⇔ Microprocessor Systems Design – Instructor: Prof. M. Tabandeh
(*As an Assistant in Lab.*) Spring 2011
- ⇔ Microprocessor Systems Design – Instructor: Prof. E. Sanaei Spring 2011
- ⇔ Microprocessor Systems Design – Instructor: Prof. B. Vosughi Vahdat Spring 2011
- ⇔ Computer Architecture and Microprocessor – Instructor: Prof. S. Bagheri
(*As an Assistant in Lab.*) Fall 2010
- ⇔ Computer Architecture and Microprocessor – Instructor: Prof. E. Sanaei Fall 2010
- ⇔ Programming in PASCAL – Instructor: Prof. M. Ehdaie Fall 2010
- ⇔ Programming in C++ – Instructor: Prof. M. Ehdaie Fall 2009
- ⇔ Programming in C++ – Instructor: Prof. M. Ehdaie Spring 2009
- Courses for Logic Circuits, Robotics, C++, Pascal and Delphi, High Schools and Junior High Schools (Farzanegan and Allameh Helli) Sep. 2008 to Jun. 2013

WORKING
EXPERIENCE

- **ETick (Electronic Ticket) Pars Intelligent Technologies Company**, Tehran, Iran
 - ⇨ Embedded Group - Programming C code on an embedded terminal with serial port, RF card reader module, printer, SAM reader, GPRS modem. Sep. 2012 to Aug. 2013
 - ⇨ Research and Development - Research and Apply EMV Specifications and ISO/IEC 7816 Standard on Smart Cards and Terminals. Summer 2012
 - ⇨ Internship Program - Designing a Passenger Counter for Public Vehicles, Which Works by Processing Images Taken From Digital Cameras Above the Entrance. Summer 2010
- **Resana Group**, Sharif University of Technology
(Resana Group is a Scientific & Cultural Group of students, performing all types of extracurricular activities in Electrical Engineering Department.)
 - ⇨ Executive Assistant Sep. 2009 to Jun. 2010
- **Students Association of EE Department**, Sharif University of Technology
 - ⇨ Head President Sep. 2008 to Jun. 2010

VOLUNTEER
EXPERIENCE

- A Member of Review Council for MDRF (Mark Diamond Research Fund) Mar. 2016
- A Member of International Orientation for UB Students Spring 2015
- A Member of International Orientation for UB Students Fall 2014