Elahe Jalalpour

Curriculum Vitae

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Last update	October 18, 2015

Research Interests

○ Computer Networks

○ Software Defined Networking

○ Internet of Things

○ Computer and System Architectures

○ FPGA

Education

2012–2016 **B.Sc. Computer Engineering**, *Amirkabir University of Technology*, Tehran.
○ *GPA − 17.31 out of 20*
○ B.Sc. Final Thesis: Implementation of software defined VPN by MPLS
    Supervisor: Prof.Khorsandi

2008–2012 **High School, Diploma of Math & physics**, *Manzoumeh Kherad Institute*, Tehran.
○ *GPA − 19.74 out of 20*

Honors & Awards

2015 Eligible for applying to Direct Admission Program for M.Sc. at Department of Computer Engineering, Amirkabir University of Technology without taking the **National Entrance Exam for Graduate Schools** as a reward of high academic records and achievements

2013–2015 Ranked in top 4 Computer Hardware Engineering Students

2014 Eligible to choose **second major** due to outstanding performance

2012 Ranked in top 0.8% of Nation-wide University Entrance Exam among all Iranian Students of Math. & Physics

2012	Ranked in top 0.9% of Nation-wide University Entrance Exam among all Iranian Students of Foreign Languages (English)
2011	**1st** Place in Iran Open Robocup Competition Demo League as a Member of *Kherad* team
2010 & 2011	**Semi-finalist** at National Mathematics Olympiad
2009	Earned **Merit Medal** in International World Youth Mathematics Competition (IWYMIC) Durban, South Africa

Research Experiences

2015	**Consistent Update in SDN**, *E.Jalalpour*, Research Methods Course. Technical report for Research Method and Technical Report Writings course (In Persian)
June 2015-present	**reaearch on a department-wide platform for IoT and building management systems**, *under supervision of Prof.Bakhshi*, Department of Computer Engineering and Information Technology, Amirkabir University of Technology, Tehran, Iran. Research on different operating systems, frameworks and platforms in IoT

Working Experiences

Summer 2015	**Iranian Telecommunication Research Center (ITRC)**, *Tehran, Iran*. Summer internship in the country's leading research center of telecommunication network systems.

Patents

Title	*Intelligent Control System of Steering Wheel*
Issued	03 / 2011
IR Patent	69363

Teaching Experiences

Fall 2015	**Teacher Assistant**, INTRODUCTION TO PROGRAMMING, Amirkabir University of technology, Under Supervision of Prof.Bakhshi.
Fall 2015	**Teacher Assistant**, COMPUTER NETWORKS II, Amirkabir University of technology, Under Supervision of Prof.Sabaei.
Fall 2015	**Teacher Assistant**, OPERATING SYSTEMS, Amirkabir University of technology, Under Supervision of Prof.Zarandi.
Winter 2015	**Teacher Assistant**, COMPUTER ARCHITECTURE, Amirkabir University of technology, Under supervision of Prof.Zarandi.

Skills & Expertise

- **Programing & Hardware Design Languages**.
  Java, C/C++, Python 3, Verilog, VHDL, 8086 Assembly, AVR Assembly
- **Networking**.
  Mininet, GNS3, Wireshark, Cisco Packet Tracer, Ryu SDN Controller, OpenFlow

- **Typesetting**.
  LaTeX, Microsoft Word, LibreOffice, Pages, Vim

- **Hardware Simulators**.
  Xilinx ISE Design Suite, P-Spice, H-Spice, Proteus, Quartus II

- **DB Management**.
  MySQL

- **Operating Systems**.
  Windows, OS X, Ubuntu, Fedora

- **Other**.
  Netbeans, Eclipse, Mathlab

Languages

Persian (Farsi)	**Native proficiency**
English	**Professional working proficiency**
French	**Elementary proficiency**

Graduate Courses

Fall 2015	**Advance Computer Networks**, *Professor Siavash Khorsandi*.
Fall 2015	**Optimization and its Applications in Computer Networks**, *Professor Bahador Bakhshi*, (Audited).

Projects

2015-present	**Final thesis project**, Python. Implementation of software defined VPN by MPLS
2015	**SDN101**, Python. Implementation of SDN based firewall (SDWall) and topology manager on ryu platform
2014	**FAT Parser**, C. Implementing FAT-16 and FAT-32 parser with delete, list and retrieve support
2014	**HTTP Proxy**, Java. Implementation of a HTTP and HTTPS proxy server
2012	**Phone Book**, C. Implementation of Phone Book with file
2013	**JUMONG (Java Ultimate Maze Obstacle Neutralizer Game)**, Java. Implementation of a graphical game with multiplayer support
2013	**River Rider**, Java. Implementation of a graphical game with multi-threading support
2013	**Bubbles**, Java. Implementation of a Java based bubbles screen saver
2014	**Disassembling DOS Executable File**.

2015 **FPGA Co-Design**, C & VHDL.
Implementing hardware modules in VHDL and using them for having a cryptographic algorithm in a software environment

2015 **Transistor Level Ripple Adder**, HSPICE.
Designing and implementing transistor level ripple adder in three families: Static CMOS, Dynamic CMOS and DCVSL

2013 **Simon Game**, *Proteus*.
Design and implementation of Simon game's logic circuit

References

Professor Bahador Bakhshi, *Assistant Professor*.
Computer Engineering and IT Department, Amirkabir University of Technology
Email: bbakhshi@aut.ac.ir

Professor Hamid Reza Zarandi, *Assistant Professor*.
Computer Engineering and IT Department, Amirkabir University of Technology
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Professor Masoud Sabaei, *Assistant Professor*.
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