

Elahe Jalalpour

Curriculum Vitae

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Research Interests

- o Software Defined Networking (SDN)
- o Network Function Virtualization (NFV)
- o Cloud & Fog Computing
- o Internet of Things (IoT)
- o Future Internet Architectures

Education

2012–2016 **B.Sc. Computer Engineering**, *Amirkabir University of Technology*, Tehran.

- o GPA – 17.35 out of 20
- o 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.

- o 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

2015 Certificate from ICT Professional Foundation: completed the Ericsson Middle East University Program, and Passed the necessary courses and assessments

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 Experience

- 2015 **Consistent Update in SDN**, *E.Jalalpour*, Research Methods Course.
Technical report for Research Method and Technical Report Writings course (In Persian)
- June **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.
2015-present Research on different operating systems, frameworks and platforms in IoT
- Summer 2014 **Summer program in the Digital System Design lab (DSD lab)**, *Under supervision of Prof.Zarandi*, Department of Computer Engineering and Information Technology, Amirkabir University of Technology, Tehran, Iran.
Summer program which was named "Introduction to FPGA", consists of several projects on Altera DE2 boards

Work Experience

- 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.**
ONOS Platform, FloodLight, Ryu, Mininet, GNS3, Wireshark, Cisco Packet Tracer, Open-Flow
- **Typesetting.**
L^AT_EX, 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, Matlab

Languages

Persian (Farsi)	Native proficiency	
English	Professional working proficiency	<i>TOEFL iBT: 103 (Nov 2015)</i>
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-present **Department Cloud**.
We deployed a cloud resource management system based on OpenStack that is being used for different researches in the department.
- 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

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Professor Hamid Reza Zarandi, *Assistant Professor*.

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Professor Masoud Sabaei, *Assistant Professor*.

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