

Elahe Jalalpour

Curriculum Vitae

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Research Interests

- o Computer Networks
- o Software Defined Networking
- o Internet of Things
- o Computer and System Architectures
- o FPGA

Education

B.Sc. Final Thesis **Implementation of software defined VPN by MPLS**, Supervisor: Prof.Khorsandi, Amirkabir University of Technology, Tehran.

2012–2016 **B.Sc. Computer Engineering**, Amirkabir University of Technology, Tehran.
GPA – 17.31 out of 20

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 **research on a department-wide platform for IoT and building management**
- 2015-present **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

- Winter 2015 **Teacher Assistant**, COMPUTER ARCHITECTURE, Amirkabir University of technology, Under supervision of Prof.Zarandi.
- 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.

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.**
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 **Native proficiency**
(Farsi)
- 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
Email: h_zarandi@aut.ac.ir

Professor Masoud Sabaei, Assistant Professor.

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