

# ParhamAlvani

MSc. Student of Computer Networks



## contact

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Technology,  
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## languages

Persian (Farsi):  
Native proficiency  
English:  
Limited working  
proficiency

## programming

♥ C, Go, Python3, Node  
PHP  
AMD64 Assembly,  
AVR Assembly,  
Java SE, Java EE  
CSS3 & HTML5  
JS

## projects

Github

## last-update

April 4, 2018

## interests

### professional:

- Internet of Things (IoT)
- Software Defined Networking (SDN)
- Network Function Virtualization (NFV)
- Kernel Hacking
- Graph Theory
- Mathematical Analysis

### personal:

- Chess
- Running

## education

2017–2019	<b>Master</b> of Computer Networks GPA: 19/20	Amirkabir University of Technology
2013–2017	<b>Bachelor</b> of Computer Software Engineering GPA: 18.94/20	Amirkabir University of Technology
2009–2013	<b>High School</b> , Diploma of Math & Physics GPA: 19.45/20	Energy Atomic High School

## honors & awards

- Summer 2016 Achieved 10th Place in Final National Scientific Olympiad in Computer Engineering
- Spring 2016 Achieved 4th Place in Semi-Final National Scientific Olympiad in Computer Engineering
- Spring 2016 Achieved 2nd Place in 3rd National Digital Design Contest of Iran ASIC League as a Member of Polytechnic team
- Spring 2016 Achieved 3rd Place in 3rd National Digital Design Contest of Iran CoDesign League as a Member of Polytechnic team
- 2015 Eligible to choose second major due to outstanding performance
- Spring 2015 Awarded as an Outstanding Student by the head of Computer Engineering and Information Technology department, AmirKabir University of Technology
- Spring 2015 Achieved 3rd Place in 2nd National Digital Design Contest of Iran CoDesign League as a Member of Polytechnic team
- Fall 2014 Achieved 3rd Place in 14th Amirkabir ACM International Collegiate Programming Contest (ICPC) as a Member of 703 team
- Fall 2014 Participated in 39th Asia Regional ACM International Collegiate Programming Contest (ICPC) in Sharif University of Technology as a Member of 703 team
- 2013 Ranked in 0.2% among more than 251,956 participators in Nation-wide University Entrance Exam among all Iranian Students of Math. & Physics
- 2012 **Semi-finalist** at National Mathematics and Computer Olympiads
- 2011 **Semi-finalist** at National Mathematics and Computer Olympiads
- 2010 **Semi-finalist** at National Mathematics and Computer Olympiads
- 2010 Achieved Merit Award in the International Mathematics Competition (IMC) Icheon, South Korea
- 2006–2009 Member of National Organization for Development of Exceptional Talents (NODET)

## research experience

- 2017–present **General purpose IoT platform, design for scalability** Under supervision of Prof.Bakhshi, AoLab  
Research and develop Distributed, Docker based I1820
- 2015–2016 **Department-wide platform for IoT and building management systems**  
Under supervision of Prof.Bakhshi, AoLab  
Research on different operating systems, frameworks and protocol stacks in IoT
- 2016–2017 **Middleware platform for IoT based on agent based approach** Under supervision of Prof.Bakhshi, AoLab  
Research and develop I1820
- Spring 2016 **Resource Provisioning in Software Defined Networking** P. Alvani  
This research was done for Research Method and Technical Writings course

## work experience

- Summer 2016 **IoT hardware and software developer** Iranian Telecommunication Research Center  
ITRC, Tehran, Iran  
Summer internship in the country's leading research center of telecommunication network systems

## skills & expertise

- **Functional Programming Languages**  
SML, Lisp, Haskell
- **Hardware Definition Languages**  
Verilog HDL, VHDL, Spice
- **Networking Tools and Protocols**  
ONOS Platform, FloodLight, Ryu, Mininet, GNS3, Wireshark, Cisco Packet Tracer, OpenFlow1.3, OpenFlow1.5
- **Typesetting**  
L<sup>A</sup>T<sub>E</sub>X, Microsoft Word, LibreOffice, Pages, Vim
- **Hardware Simulators**  
Xilinx Vivado Design Suite, P-Spice, H-Spice, Proteus, Quartus II
- **DB Management Systems**  
MySQL, PostgreSQL, MongoDB, Microsoft SQL Server
- **Operating Systems**  
Ubuntu Desktop, Ubuntu Server, CentOS, OS X, Windows, Windows Server 2012, VMware vSphere 6.5
- **Other**  
Netbeans, IntelliJ, Eclipse, Octave, Matlab
- **Frameworks**
  - Virtualization Frameworks**
    - Docker
    - Docker Compose
    - OpenVSwitch
  - C Frameworks**
    - CGI Programming
    - BSD Socket Programming
    - UNIX System Programming
    - GTK
    - Gnome
  - Java Frameworks**
    - Maven
    - Log4j
    - JPA (Java Persistence API)
    - Hibernate
    - JSP
    - JSF

## teaching experiences

Fall 2014	<b>Principles of Computer and Programming</b> Amirkabir University of technology, Under Supervision of Prof. Bakhshi.	Teaching Assistant
Spring 2015	<b>Advance Programming</b> Amirkabir University of technology, Under Supervision of Prof. Noorhosseini.	Teaching Assistant
Spring 2015	<b>Discrete Mathematics</b> Amirkabir University of technology, Under Supervision of Prof. Fallah.	Teaching Assistant
Spring 2015	<b>Introduction to Python Programming</b> 7th Amirkabir Linux Festival, Python Workshop	Instructor
Fall 2015	<b>Principles of Computer and Programming</b> Amirkabir University of technology, Under Supervision of Prof. Bakhshi.	Teaching Assistant
Spring 2016	<b>Advance Programming</b> Amirkabir University of technology, Under Supervision of Prof. Noorhosseini.	Teaching Assistant
Spring 2016	<b>Principles of Database Design</b> Amirkabir University of technology, Under Supervision of Prof. Momtazi.	Teaching Assistant
Spring 2016	<b>Microprocessor I</b> Amirkabir University of technology, Under Supervision of Prof. Homayoun-pour.	Teaching Assistant
Spring 2016	<b>Engineering Statistics and Probability</b> Amirkabir University of technology, Under Supervision of Prof. Amir Haeri.	Teaching Assistant
Spring 2016	<b>Introduction to Golang Programming</b> 8th Amirkabir Linux Festival, Go Workshop	Instructor
Spring 2016	<b>IoT and IPv6</b> 8th Amirkabir Linux Festival	Speaker
Fall 2016	<b>Principles of Computer and Programming</b> Amirkabir University of technology, Under Supervision of Prof. Bakhshi.	Teaching Assistant
Fall 2016	<b>Principles of Database Design</b> Amirkabir University of technology, Under Supervision of Prof. Amir Haeri.	Teaching Assistant
Fall 2016	<b>Data Structure Design</b> Amirkabir University of technology, Under Supervision of Prof. Dehghan.	Teaching Assistant
Spring 2017	<b>Principles of Database Design</b> Amirkabir University of technology, Under Supervision of Prof. Momtazi.	Teaching Assistant
Spring 2017	<b>Computer Architecture</b> Amirkabir University of technology, Under Supervision of Prof. Shiri.	Teaching Assistant
Spring 2017	<b>Introduction to IoT Platform</b> 2nd Iran IoT Conference, Platform Workshop	Instructor
Spring 2017	<b>Golang, The Future of C</b> 9th Amirkabir Linux Festival	Speaker
Spring 2017	<b>I1820, The IoT Platform</b> 9th Amirkabir Linux Festival	Speaker
Summer 2017	<b>Advanced Python Programming</b> SSC IoT Summer Course	Instructor
Summer 2017	<b>An Introduction to IoT Platforms</b> SSC IoT Summer Course	Instructor

Fall 2017	<b>Principles of Computer and Programming</b> Amirkabir University of technology, Under Supervision of Prof. Bakhshi.	Teaching Assistant
Spring 2018	<b>Microprocessor I</b> Amirkabir University of technology, Under Supervision of Prof. Homayoun-pour.	Teaching Assistant
Spring 2018	<b>Advance Programming</b> Amirkabir University of technology, Under Supervision of Prof. Noorhosseini.	Teaching Assistant
Spring 2018	<b>Computer Networking</b> Amirkabir University of technology, Under Supervision of Prof. Sabaei.	Teaching Assistant
Spring 2018	<b>Microprocessor Lab</b> Amirkabir University of technology, Under Supervision of Prof. Homayoun-pour.	Instructor
Spring 2018	<b>Computer Networking Lab</b> Amirkabir University of technology, Under Supervision of Prof. Sabaei.	Instructor
Spring 2018	<b>Advance Programming Lab</b> Amirkabir University of technology, Under Supervision of Prof. Noorhosseini.	Instructor

## graduate courses

Fall 2015	<b>Advanced Computer Networks</b>	Professor Khorsandi
Spring 2017	<b>Computer Networks Management</b>	Professor Bakhshi

## certifications

- CompTIA Network+
- Supporting Windows 8.1 (70–688)
- Installing and Configuring Windows Server 2012 (70–410)
- Administering Windows Server 2012 (70–411)
- Configuring Advanced Windows Server 2012 Services (70–412)
- Designing and Implementing a Server Infrastructure (70–413)
- Implementing an Advanced Server Infrastructure (70–414)
- LPIC-1 (101–102)
- LPIC-2 (201–202)
- Cisco CCENT
- VMware vSphere: Install, Configure, Manage
- VMware vSphere: Optimize and Scale