# Parham **Alvani**

PHD STUDENT · BACKEND DEVELOPER

□ (+98) 939-09-09-540 | ■ parham.alvani@gmail.com | ♠ https://1995parham.me | ☑ 1995parham | ﴾ 1995parham | 🖹 parham-alvani | 🗞 parham.alvani | № 1995parham

"I have a dream"



Summer 2016

Jul. 2017 - Jun. 2019

## **Summary**

Current Backend Enginner at ride hailing company Snapp. 3+ years experience specializing in the backend development, system design. Super nerd who loves Vim, Linux and OS X and enjoys to customize all of the development environment. Interested in Network Function Virtualization, Optimization, Software Defined Networking.

#### PROGRAMMING LANGUAGES AND TECHNOLOGIES

- Golang & C (Expert)
- AMD64 Assembly (Expert)
- Nodejs & Python (Specialist)
- Laravel (Skilled)
- Angular (Specialist)
- Ubuntu, Docker & Kubernetes (Expert)
- Rust (Beginner)

#### **NETWORKING TOOLS AND PROTOCOLS**

- OpenFlow1.3, OpenFlow1.5
- · ONOS Platform, FloodLight, Ryu
- Mininet

# Work Experience

#### Iranian Telecommunication Reseach Center (ITRC)

maman retection and action research center

Trainee

# IoT Working Group of Amirkabir University of Technology

System Architect & Software Engineer

• Designed the scalable IoT Platform that can handle 1K rps with Golang

• Run services with Docker on bare-metals and monitored them using Prometheus

• Designed and implemented the home automation solutions using the Raspberry Pi

Snapp!

Backend Engineer

Jun. 2019 - Present

• Developed location based system that handles high load

University of Technology

• Designed and Developed surge pricing system that consumes 6K messages per second with Golang

## **Honors & Awards**

### **ACADEMIC**

2016	4th Place, Semi-Final National Scientific Olympiad in Computer Engineering	Tehran, Iran
2016	10th Place, Final National Scientific Olympiad in Computer Engineering	Tehran, Iran

#### COMPETITION

Fall 2014

Spring 2016	2nd Place, 3nd National Digital Design Contest of Iran ASIC League	Tehran, Iran
Spring 2016	<b>3rd Place</b> , 3nd National Digital Design Contest of Iran CoDesign League	Tehran, Iran
Spring 2015	<b>3rd Place</b> , 2nd National Digital Design Contest of Iran CoDesign League	Tehran, Iran
Fall 2014	<b>3rd Place</b> , 14th Amirkabir ACM International Collegiate Programming Contest (ICPC)	Tehran, Iran
Tall 2014	Merit Medal, 39th Asia Regional ACM International Collegiate Programming Contest (ICPC) in Sharif	Tobran Iran

September 9, 2019 Powered by WeXand AwesomeCV

#### HIGH SCHOOL

2012	Semi-finalist, National Mathematics and Computer Olympiads	Tehran, Iran
2011	Finalist, National Mathematics and Computer Olympiads	Tehran, Iran
2010	Finalist, National Mathematics and Computer Olympiads	Tehran, Iran
2010	Merit Award, International Mathematics Competition (IMC)	Icheon, S.Korea

# **Teaching Experience**

### **Principles of Computer and Programming**

TEACHING ASSISTANT

Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Spring 2019, Fall 2019

#### **Advanced Programming**

TEACHING ASSISTANT

Spring 2015, Spring 2016, Spring 2018

#### **Discrete Mathematics**

TEACHING ASSISTANT

Spring 2015

### **Introduction to Python Programming**

INSTRUCTOR

Spring 2015

### **Principles of Database Design**

TEACHING ASSISTANT

Spring 2016, Spring 2017

#### Microprocessor I

TEACHING ASSISTANT

Spring 2016, Spring 2018, Fall 2018, Spring 2019

### **Engineering Statistics and Probability**

TEACHING ASSISTANT

Spring 2016

### **Introduction to Golang Programming**

INSTRUCTOR

Spring 2016

#### IoT & IPv6

Speaker

Spring 2016

#### **Principles of Database Design**

TEACHING ASSISTANT

Fall 2016

#### **Data Structure Design**

TEACHING ASSISTANT

Fall 2016, Fall 2017

#### **Computer Architecture**

TEACHING ASSISTANT

Spring 2017

#### **Introduction to IoT Platform**

SPEAKER

Spring 2017

#### Golang, The Future of C

SPEAKER

Spring 2017

#### Amirkabir University of Technology

Under Supervision of Prof. Bakhshi

#### Amirkabir University of Technology

Under Supervision of Prof. Noorhosseini

#### Amirkabir University of Technology

Under Supervision of Prof. Fallah

#### 7th Amirkahir Linux Festival

#### Amirkabir University of Technology

Under Supervision of Prof. Momtazi

#### Amirkabir University of Technology

Under Supervision of Prof.

Homayounpour

#### Amirkahir University of Technology

Under Supervision of Prof. Amir Haeri

#### 8th Amirkahir Linux Festiva

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#### mirkahir University of Technology

Under Supervision of Prof. Amir Haeri

#### Amirkabir University of Technology

Under Supervision of Prof. Dehghan

#### Amirkabir University of Technology

Under Supervision of Prof. Shiri

#### 2nd Iran IoT Conference

#### 9th Amirkabir Linux Festival

11820, The IoT Platform

SPEAKER

Spring 2017

**Advanced Python Programming** 

INSTRUCTOR

Summer 2017

An Introduction to IoT Platforms

INSTRUCTOR

Summer 2017

**Computer Networks** 

TEACHING ASSISTANT

Spring 2018, Fall 2018, Spring 2019

Microprocessor Lab

INSTRUCTOR

Spring 2018

**Computer Networks Lab** 

INSTRUCTOR

Spring 2018, Fall 2018, Spring 2019

**Advanced Programming Workshop** 

INSTRUCTOR

Spring 2018

**Operating System Lab** 

INSTRUCTOR

Fall 2018, Fall 2019

**Introduction to Programming Workshop** 

INSTRUCTOR

Fall 2019

Under Supervision of Prof. Bakhshi

Fall 2017

2015-2017

Under Supervision of Prof. Zarandi

Under Supervision of Prof. Sabaei

Under Supervision of Prof. Sabaei

Under Supervision of Prof. Noorhosseini

Under Supervision of Prof.

Homayounpour

# **Research Experience**

**SFC Requests Admission Control by Considering VNFMs** 

MAXIMIZE PROFIT BASED ON AN OPTIMIZATION PROBLEM FOR ACCEPTING SFCS AND CONSIDERS VNFMS FOR THEM

· M.Sc. Project

General purpose IoT platform, design for scalability

RESEARCH AND DEVELOP DISTRIBUTED, DOCKER BASED IOT PLATFORM NAMED 11820

· B.Sc. Project

Department-wide platform for IoT and building management systems

RESEARCH ON DIFFERENT OPERATING SYSTEMS, FRAMEWORKS AND PROTOCOL STACKS IN IOT

• Amirkabir IoT Labratory (AoLab) resource are available here

**Resource Provisioning in Sotfware Defined Networking** 

Spring 2016

• This research was done for Research Method and Technical Writings course

# Education

**Energy Atomic High School** 

DIPLOMA OF MATH & PHYSICS Sep. 2009 — Sep. 2013

• GPA: 19.45/20

**Amirkabir University of Technology** 

B.Sc. IN COMPUTER SOFTWARE ENGINEERING Sep. 2013 — Sep. 2017

• GPA: 18.94/20

**Amirkabir University of Technology** 

Sep. 2017 — Sep. 2019

M.Sc. in Computer Network

• GPA: 18.94/20

### **Amirkabir University of Technology**

Ph.D. IN COMPUTER NETWORK

• GPA: N/A

Sep. 2019 — Sep. 2023

# **Extracurricular Activity**

**Linux Festival** 

SCIENTIFIC DIRECTOR

Spring 2016, Spring 2017

- Seleted the presentors for event
- · Coordinated the technical aspects of event

**AUT ICPC** 

HEAD OF TECHNICAL TEAM

Fall 2016, Fall 2017, Fall 2018

- · Setup the judge server
- Coordinated the clients configuration and setup

**Amirkabir Programming League** 

Spring 2019

- HEAD OF TECHNICAL TEAM · Setup the judge server
- Coordinated the clients configuration and setup

- 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