## Shayan Hosseini

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## Research Interests

- Distributed Systems
- Data Structures and Algorithms
- Graph Theory
- Bioinformatics

#### Education

### University of Tehran, Tehran, Iran

2015 - present

Undergraduate student of B.Sc. in Software Engineering

- Current GPA: 17.11/20
- Related Courses: Design and Analysis of Algorithms (20/20), Data Structures and Algorithms (19.8/20), Theory of Formal Languages and Automata (19.5/20), Algorithmic Graph Theory (18.5/20), Computer Networks (18.1/20), Advanced Programming (18/20), Discrete Mathematics (18/20)

# Allameh Helli High School, Tehran, Iran

2011 - 2015

Affiliated with the National Organization for the Development of Exceptional Talents (NODET), Diploma in Mathematics and Physics Discipline

## Awards and Honors

**ACM-ICPC**, International Collegiate Programming Contest by ACM.

- **56<sup>th</sup> Team** in the 41<sup>th</sup> ACM ICPC World Finals, South Dakota, USA 2017
- 2<sup>nd</sup>, 2<sup>nd</sup>, 9<sup>th</sup> Team in Regional Contests of ACM ICPC West Asia Region, Tehran site, respectively in 2017, 2016 and 2015.

Silver Medal in the 24<sup>th</sup> Iranian National Olympiad in Informatics

2014

Member of National Elites Foundation, Iran

2014 - persent

# Teaching Experience

## Teaching Assistant

University of Tehran

• Chief TA: Design and Analysis of Algorithms, H. Mahini	Fall 2018
• Chief TA: Design and Analysis of Algorithms, H. Mahini	Spring 2018
• Engineering Probability and Statistics, B. Bahrak	Fall 2018
• Advanced Programming, R. Khosravi, A. Sadeghi	Fall 2017
• Discrete Mathematics, S.Mohammadi	Spring 2017
• Data Structures and Algorithms, H. Feili	Fall 2016

## IOI and ACM-ICPC related

Teaching special topics in computer science including Algorithms, Data Structrues, and Graph Theory to undergraduate students preparing for ACM-ICPC as well as high school students preparing for INOI.

Sir benoof students preparing for invol.	
• University of Tehran	2017
• INOI Summer Camp, at Young Scholars Club	2015
• Allameh Helli High School	2015

## Professional Development

The following Coursers were taken to acquire skills relevant to my work and research.

- Cloud Computing Concepts, by University of Illinois at Urbana-Champaign
- Biology Meets Programming, by University of California San Diego
- Game Theory, by Stanford University and UBC
- Functional Programming Principles in Scala, by EPFL

## Professional Experience

#### Technical Lead and Product Manager at Cafebazaar

2017 - present

Member of infrastructure team. Aiming to provide high available and scalable services to other technical teams and later to other companies as a public cloud. Leading a team of 7 people to build a distributed storage service and develop our Content Delivery Network. Responsible for maintaining and developing these services and collaborating with other technical teams and companies.

#### Software Engineer at Cafebazaar

2015 - 2017

Cafebazaar is the most popular and successful Android application store in Iran, with more than 30 million users. Member of app acquisition team working on application download and payment system. Responsible for system ownership of CDN and parts of Cafebazaar back-end, Interviewing new software engineer candidates and improvement of the technical interview process.

#### Software Developer at Sabz Biomedicals

Summer 2015

Developing software of Gel Documentation System(An instrument for high quality visualization and recording of DNA bands).

## Notable Projects

#### **Network Course Project**

2018

Designed an algorithm for detecting topology of an unknown network. Implemented in Floodlight SDN OpenFlow Controller.

#### **Operating Systems Course Project**

2017

Implemented system call handler and an efficient CPU scheduler for communicating to many IO devices for Pintos.

Limoo 2017

A desktop application that shows lyrics for the current playing song, server app in Go and client in Python.

CAPTCHA Farsi 2011-2012

Generating CAPTCHA in Persian by using image processing and calligraphy methods. Can be used in Persian websites. Awarded as Best Project in 8th NODET Young Researchers Festival.

# Skills and Qualities

### Theoretical Background:

Experienced in Design of Algorithms, Data Structures, and Discrete Mathematical fields such as Graph Theory and Combinatorics.

#### Languages and Tools:

Expert in C/C++, Go, Python, Bash-Scripting, Pascal, SQL, Git. Working knowledge in Java, Lua, Verilog, Lag.

## Software Engineering:

Familiar with different object oriented design patterns and software development methodologies such as Agile and DevOps.

# Web Application Development:

Comfortable with Django, Flask, CSS3 and HTML5.

### Site Reliability Engineering:

- Managed scalability and maintainability challenges in several web applications having thousands of requests per second.
- Expert Linux user and experienced in system administration.
- Experience in Ceph storage platform, Kubernetes, Docker, NGINX.
- Working knowledge in Computer Networks.

#### Other:

Creative, self-motivated, eager to learn new things. Communicative and collaborative with the ability to work both independently and in a team.