

# SHAYAN HOSSEINI

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## EDUCATION

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**University of Tehran, Tehran, Iran** 2015 - present  
Undergraduate student of B.Sc. in Software Engineering

- Current GPA: 17.11/20

**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

## PROFESSIONAL EXPERIENCE

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**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.

- Member of infrastructure's Delivery team. Started this team with 2 people and currently, we are 8.
- Developed a distributed Object storage service using Ceph, named Kise. Now it serves more than 50 TB of data and responding to more than one thousand requests per second. Cafebazaar, Divar, and Balad are using Kise heavily in production.
- Developed a new architecture for our Content Delivery Network to use cache servers and IP Anycast Network. Have scaled this service to serves more than 100 Gbps of traffic.
- Developed a new software architecture for the CDN nodes to be dynamically configurable and multi-tenant using Nginx Lua module and OpenResty.
- As Product Manager, responsible for:
  - Determining team's vision, OKRs, stories, and tasks.
  - Collaborating with other technical teams and companies.
- As a Tech Lead, responsible for deciding on technical problems, developing and maintaining these services.

**Software Engineer at Cafebazaar** 2015 - 2017  
Cafebazaar is the most popular Android application store in Iran, with more than 35 million users.

- Member of app acquisition team, working on application download and payment system.
- System owner of CDN and parts of Cafebazaar back-end. Responsible for code reviews and the systems to be available, scalable and maintainable.
- As a Scrum Master, responsible for facilitating Scrum meetings and process conflicts resolution.
- Interviewing new software engineer candidates and improvement of the technical interview process.

**Software Developer at Sabz Biomedicals** Summer 2015  
Developed software of Gel Documentation System (an instrument for high-quality visualization and recording of DNA bands). Implemented image processing part of the application for detecting DNA bands in a picture.

## AWARDS AND HONORS

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**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 - present

## TEACHING EXPERIENCE

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### Teaching Assistant

University of Tehran

- **Chief TA:** Design and Analysis of Algorithms, H. Mahini Fall 2018, 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 Structures, and Graph Theory to undergraduate students preparing for ACM-ICPC as well as high school students preparing for INOI.

- University of Tehran 2017
- INOI Summer Camp, at Young Scholars Club 2015
- Allameh Helli High School 2015

## PROFESSIONAL DEVELOPMENT

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The following Coursera courses were taken to acquire skills relevant to my work and interests.

- **Cloud Computing Concepts**, by University of Illinois at Urbana-Champaign
- **Functional Programming Principles in Scala**, by EPFL

## NOTABLE PROJECTS

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**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

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**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, L<sup>A</sup>T<sub>E</sub>X.

**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, Computer Networks.

**Languages:** Persian (Native), English (Full professional proficiency)

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