

# Erfan Alimohammadi

Faculty of Computer Engineering, Shahid Beheshti University, Daneshjou Boulevard, Velenjak, Tehran, Iran

☎ (+98) 919-30-39-381 | ✉ [erfan.aa@gmail.com](mailto:erfan.aa@gmail.com) | 🏠 [palindrome.ir](http://palindrome.ir) | 📺 [erfan.aa](https://www.youtube.com/channel/UCv33333333333333333333) | 📄 [erfan-alimohammadi](https://www.linkedin.com/in/erfan-alimohammadi) | 📄 [erfan-alimohammadi](https://www.linkedin.com/in/erfan-alimohammadi) | 🐦 [erfanafre](https://twitter.com/erfanafre)

## Education

### Shahid Beheshti University

Tehran, Iran

B.Sc. IN COMPUTER ENGINEERING

2015 - present

- Related courses: Introduction to Programming (20/20), Advanced Programming (20/20), Discrete Mathematics (19.75/20), Data Structures (20/20), Design and Analysis of Algorithms (19/20)

### Allameh Helli High School

Tehran, Iran

DIPLOMA IN MATHEMATICS AND PHYSICS DISCIPLINE

2011 - 2015

- Affiliated with the [National Organization for the Development of Exceptional Talents \(NODET\)](https://www.nodet.ir/)

## Professional Experience

### Balad Maps

Tehran, Iran

SOFTWARE ENGINEER

Fall 2019 - present

- A member of Maps Data Team.
- Handling some tasks related to basic data science.

### Cafe Bazaar

Tehran, Iran

SOFTWARE ENGINEER

Summer 2016 - Spring 2018

- Cafe Bazaar is the most popular and successful Android application store in Iran, with a user-base of near 50 million people.
- A member of App Discovery Team and Inline Apps Team.
- A software engineer interviewer, to help Cafe Bazaar in hiring new people.
- Developing an admin panel for the executive team of Cafe Bazaar, using Python Django, HTML, CSS and Javascript.
- Android Programming for developing a platform for developers to create some Android apps which there is no installation needed for them.

## Teaching Experience

### TEACHING ASSISTANTSHIP

**Design and Analysis of Algorithms, Dr. Ghavamizadeh,** Held some TA sessions.

Spring '18, Fall '18, Spring '19

Determined and graded some computer assignments.

**Data Structures, Dr. Abin,** Held TA sessions. Determined and graded the course projects.

Fall '17, Spring '18, Fall '18, Spring '19

**Statistics and Probabilities, Dr. Safaei,**

Fall '18

**Data Structures, Dr. Ebrahimi Moghaddam,**

Fall '18

**Advanced Programming, Dr. Vahidi-Asl,** Held some TA sessions. Grade a computer assignment.

Spring '17

**Discrete Mathematics, Dr. Safaei,** Helped handling some TA sessions.

Spring '17

**Discrete Mathematics, Dr. Abdoos,** Helped handling some TA sessions.

Spring '17

**Introduction to Programming, Dr. Abdoos,** Held some TA sessions (with extra contents about Linux OS). Determined a computer assignment.

Fall '16

### OTHER

**University of Tehran ACM Chapter,** Organizing the algorithm design and ACM-ICPC preparation classes

Fall 2018

**Shahid Beheshti University,** Organizing “Python for Beginners” and “Debugging for Beginners” workshops

2017

**Allameh Helli High School,** Teaching Data Structures and Algorithm Design (preparing students for INOI)

Summer 2015

# Honors and Awards

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## ACM-ICPC AND IOI RELATED

2017	<b>Silver Medal</b> , <a href="#">ACM-ICPC Asia Tehran Regional Contest</a>	<i>Tehran, Iran</i>
2017	<b>56th Rank</b> , <a href="#">ACM-ICPC World Finals</a> (from among 133 teams chosen from a field of 46,381 contestants)	<i>South Dakota, USA</i>
2016	<b>1st Rank</b> , <a href="#">ACM-ICPC Asia Lahore Regional Contest</a>	<i>Lahore, Pakistan</i>
2015	<b>Finalist</b> , <a href="#">International Bayan Programming Contest</a>	<i>Tehran, Iran</i>
2014	<b>Semi-finalist</b> , <a href="#">24th Iranian Olympiad in Informatics</a> (selected as top 70 students among 10000 participants)	<i>Tehran, Iran</i>
2014	<b>Semi-finalist</b> , <a href="#">24th Iranian Olympiad in Mathematics</a>	<i>Tehran, Iran</i>
2011	<b>1st Rank</b> , <a href="#">6th HelliNet Contest</a> (nationwide programming competition for high school students)	<i>Tehran, Iran</i>

## PROJECTS

2014	<b>Selected Project of Tehran Province</b> , <a href="#">Khwarizmi Youth Festival</a> (for “Digital Signature“ project)	<i>Tehran, Iran</i>
2013	<b>The Best Project Award</b> , <a href="#">Allame Helli High School Seminar on Science and Technology</a> (for an AVR programmed project, called “Intelligent Bumper“)	<i>Tehran, Iran</i>
2011	<b>The Best Project Award</b> , <a href="#">8th NODET Young Researchers Festival</a> (for “Persian Letters OCR“ project)	<i>Tehran, Iran</i>
2011	<b>The Second Best Project Award</b> , <a href="#">8th NODET Young Researchers Festival</a> (for “Persian CAPTCHA“ project)	<i>Tehran, Iran</i>

## OTHER

2019	<b>80th Rank</b> , <a href="#">Huawei MNIST Challenge</a> (onsite neural networks competition among 124 universities)	<i>Porto, Portugal</i>
2018	<b>Completed All Levels</b> , <a href="#">Google FooBar</a> (a secret challenge by Google, to examine your Java or Python skills)	
2015	<b>1st Rank</b> , <a href="#">Shahid Beheshti University AI Challenge Competition</a>	<i>Tehran, Iran</i>
2015	<b>Top 1%</b> , <a href="#">The Nationwide Entrance Exam of Iranian Universities</a> (among more than 180,000 contestants)	<i>Tehran, Iran</i>

# Skills

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<b>Technical (proficient):</b>	Pascal, Delphi, C/C++, Python, Java, Git, Linux (Ubuntu), Raspberry Pi, Adobe Photoshop
<b>Technical (familiar):</b>	Django, Databases, Docker, Android Studio, Microsoft Q#, Matlab/Octave, HTML and CSS
<b>Theoretical (proficient):</b>	Design of Algorithms, Data Structures, Graph Theory and Computational Geometry fields
<b>Theoretical (familiar):</b>	Machine Learning, Deep Learning, Image Processing and Computer Vision fields
<b>Languages:</b>	Persian (mothertongue), English (upper-intermediate)

# Notable Projects

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<b><a href="#">Commit Type Detection</a></b>	2020
• Classifying Git commits with deep learning (using PyTorch and scikit-learn)	
<b><a href="#">Persian Digits Recognition</a></b>	2019
• Recognition of Farsi (Arabic) Scanned Digits (using PyTorch and OpenCV)	
<b><a href="#">Map Coloring</a></b>	2019
• Backtracking on graphs for coloring a map with four colors (using NumPy, Matplotlib and OpenCV)	
<b><a href="#">Map Merging</a></b>	2019
• Merge two maps of a city by modeling them to graphs and polygons (using NetworkX)	
<b><a href="#">Persian OCR</a></b>	2010
• Offline optical character recognition of Farsi letters, using neural networks and feature extraction (with no special libraries)	

# Other Activities

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## Presentations

- [Guest Speaker at the 21th ACM-ICPC Asia Tehran Regional Contest](#), presenting Map Merging as a computational geometric problem

## Problemsetting of Algorithmic Contests

- [CodeChef March Cook-Off 2019](#), [HackerEarth March Circuits 2019](#), [CodeChef March LunchTime 2019](#), [Codeforces Round #261](#)

## Creating Some Fun Electronic/Robotic Projects

- Using Raspberry Pi

## Photography and Graphical Design

- Using DSLR camera and Adobe Photoshop