

# Erfan Gholami

COMPUTER ENGINEER

Tehran, Iran

✉ erfangholami76@gmail.com | 🌐 erfangholami | 📧 erfangholami | 📞 erfangholami76 | 🌐 erfangholami.github.io | ☎ (+98) 918-788-8582

## Education

### B.Sc. IN COMPUTER ENGINEERING

Tehran, Iran

SHAHID BEHESHTI UNIVERSITY (SBU)

Sep. 2015 - Sep. 2020

- Thesis : "Implementation of Efficient Subgraph Matching Harmonizing Dynamic Programming, Adaptive matching order, and Failing set together (DAF, see paper [here](#)) algorithm in Apache Spark" supervised by Dr. Hasan Haghighi
- Ranked within the top 6 universities in Iran according to [The World University Ranking 2020](#)

### DIPLOMA IN MATHEMATICS AND PHYSICS DISCIPLINE

Sanandaj, Iran

SHAHID BEHESHTI HIGH SCHOOL

Sep. 2011 - Sep. 2015

- Affiliated with the National Organization for the Development of Exceptional Talents (NODET)

## Honors & Awards

### INTERNATIONAL

2017 **Certificate of Participation**, RoboCup IranOpen International Competition - Worker league

Tehran, Iran

### DOMESTIC

2017 **3rd Place**, Electorate of World skills Competition - Mobile Robotics

Karaj, Iran

2016 **3rd Place**, National skills Competition - Mobile Robotics

Karaj, Iran

2015 **Full scholarship**, from Shahid Beheshti University (Tuition waiver)

Tehran, Iran

2015 **Top 1%**, Iranian university entrance exam

Iran

## Research Interests

- Software engineering
- Automated Software testing
- Software structure design(Mobile)
- Mobile interaction
- Debugging

## Projects

### ACADEMIC

#### Persian digit recognition

2019

Collect data and create MNIST-like for Persian digits then use this data to teach a neural network implemented in Python language, to gain Persian Digit detection. This project had done as a part of the Deep Learning course final project.

#### Home's light control system

2019

Implement a light control system using the Arduino micro and GSM module and control it with an android application.

#### Digital gadget prices Telegram bot

2018

Design and develop a database system with SQLServer and connect with Telegram bot's API using Java language for control over the database for the Database Laboratory course.

#### Digital signal processor system

2018

Develop a human voice pitch detection system using the Autocorrelation technique in C language and Implement it on Arduino UNO for use in a real environment. This project had done for the MicroProcessor course.

#### Worker remote robot

2017

Design and build a robot that works remotely to help store clerks. It can identify objects by image processing that we implemented with the OpenCV library, catch and hold objects, and change its location. As a team member, I was responsible for assembling electronic pieces and programming for processing sensor data and images, implement decision graph and control a hand-like arm.

## ARM 8 processor implementation

2017

Implementation of ARM 8 processor (pipelined version) as Computer Architecture's final project by using the Verilog HDL and Modelsim simulation tool.

## Windows based Telegram app

2016

Implementation of Telegram-like application using Java language as part of the Advanced Programming course.

## INDUSTRY

### E-ways b2b Android app

2020

Eways is an Android application that helps small businesses from all around Iran access the newest electronic gadgets and their accessories and online services at the lowest price.

- As a development team member, I was responsible for design application architecture, developing, and maintaining the app.
- This app uses the MVVM architecture, Google architecture components, Dagger for dependency injection, RxJava and Coroutines for threading, and other newest methods and technologies. The development languages were Java and Kotlin together. Also, we had unit and integration tests to make bugs minimum before release.
- One of the most significant challenges we faced during the whole process was the complication of architecture design because of having different version types and the number of pages.

### Hamoon (780) Android app

2019

Hamoon (780) is an Android application that provides online services like buying Sim-card charges or internet packages, helping charities, etc.

- As a development team member, I was responsible for developing and maintaining the app.
- This application uses quite different architecture in comparison with other ones. We have developed a core with separate services in different layers. We have a customized XML parser to implement new rules. Also, all UI pages can be controlled over a simple back-end operator and without any new release, and users can see changes immediately without any app update.
- Java is the primary language used in this app, and all UI elements are designed and implemented from scratch.

### MobileGIS Android app

2018

I developed An Android application that uses OSMDroid library to show maps and layers. You can show different objects with different formats in this app. It uses OSM maps, and layers and you can navigation between two points easily. Draw polygon, polyline, and points are allowed.

## Experiences

---

### TEACHING

#### Shahid Beheshti University Android Group

Tehran, Iran

##### MENTOR

2018

- Mentoring new-entry Computer Engineering students
- Teaching Android fundamentals in AP course to develop students final project (Telegram like messenger app)

### INDUSTRY

#### Haf Hashtad (\*780#)

Tehran, Iran

##### ANDROID ENGINEER

Dec. 2018 - Sep. 2020

In this position, I was responsible for designing and implementing Android applications for the e-commerce business. I was a team member that included developers, designers, project managers, and business managers.

We launched two programs; Hamoon and Eways. I helped the company reach a real solution for its b2b android app, and it is ready for release.

Also, I helped the team to finish the Hamoon app that satisfies business demands completely.

#### Knada Idea

Tehran, Iran

##### ANDROID DEVELOPER

Apr. 2018 - Oct. 2018

In this position, I was responsible for maintaining and developing Android applications for the company's business partners. I was a team member that included developers, project managers, and business managers, but my main interactions were back-end developers and DB manager.

The first two months were internship, and I completed my first industry project in this period. I helped the company finish two remain and incomplete projects.

#### Freelance

Tehran, Iran

##### EMBEDDED SYSTEMS DESIGNER

Sep. 2017 - Oct. 2019

- Design and develop small embedded systems based on FPGA, AVR and ARM.
- Develop and implement small digital signal processor using Arduino.

#### Freelance

Tehran, Iran

##### SOFTWARE DEVELOPER

Sep. 2017 - Apr. 2018

# Skills

---

**Programming Languages:**

Fluent in: Android Program Development, Java, Kotlin, C/C++, Scala, Python, Verilog and VHDL  
Familiar with: JavaScript, SQL, LaTeX, HTML and CSS.

**Frameworks & Tools:**

Android, Google Architecture Components, Google APIs, Retrofit, Dagger, RxJava, JUnit, Espresso, Mockito, Git, MongoDB, Spark, OpenCV, ARM and AVR

**Operation Systems:**

Microsoft Windows, Ubuntu Linux, Android

**Development Environments:**

Android Studio, IntelliJ IDEA, PyCharm, Microsoft Visual Studio, SQLServer and Modelsim

**Languages:**

English(fluent, IELTS: will be taken on Dec. 21<sup>st</sup>, 2020),  
Kurdish(mother-tongue),  
Persian(national)