# **Khaled Qasem**

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#### Education

- An-Najah National University Nablus, Palestine.
  Bachelor's Degree, Computer Engineering, 2012 2017 (GPA: 3.03)
- General secondary examination (Tawjihi) from Jalqamous high school, Jenin, Palestine. Graduated in 2012, with a distinction (96.7 out of 100).

## Work experience

### **Android developer**

September 1, 2018 – Current Harri. Ramallah, Palestine.

## Lead Software Engineer (Android specialist)

September 1, 2017 – September 1, 2018 Iris Solutions. Ramallah, Palestine.

#### **Software Engineer (Android specialist)**

February1, 2017 – September 1, 2017 Iris Solutions. Ramallah, Palestine.

### **Software Engineer (Android freelancer)**

June 1,2016 - Current

## **Projects at IRIS**

#### **Iris Store**

I led the team to build Iris store which is a store like play store but it's specific for Iris apps and sensory box apps.

#### **SensoryBox**

Sensory Box is a user-friendly and easy-to-install tool to create an immersive sensory environment. Change light, music, sounds, and visuals to complement the environment you currently need, be it educational, rehabilitative, or relaxing atmosphere.

Sensory box have two android devices, router and light bridge. All of these components contact with each other so there is a lot of network handling while building the product. We use http requests and web socket techniques.

(Meet sensory box : http://iris.ps/en/products/sensory-box/)

### **Projects**

#### NDN Over IP – Named Data Networking Over Internet Protocol-

In my software graduation project, I designed a new transport protocol for IP network using software defined network –SDN- in order to have an in-automatic Cache in IP network. Which will increase the performance of network by reducing the response time and make less traffic in WAN. To implement this design, I developed a simple browser, cache and server modules and floodlight controller module. The project was tested by GNS3 and minnet simulators. In cooperation with researchers from Clemson University in South Carolina, USA. Note: results of my work will be presented as part of research paper and the project was graded average A. Project on GitHub: https://github.com/khaled-qasem/NDNFloodLight

#### WIConnect

Android library for all Wi-Fi configurations (connectivity, change IP..etc) Project on GitHub: <a href="https://github.com/khaled-qasem/WiConnect">https://github.com/khaled-qasem/WiConnect</a>

#### Sharkna app

Android application to increase communication between people and municipalities, using this app you can report common street problems, like potholes or broken street lights or any problem concern to councils throughout the Palestine.

Project on GitHub: https://github.com/khaled-qasem/Sharkna

### FileSharing

Graphical user Interface application to share files in network, actually its two applications, one of them uses UDP protocol and the other uses TCP protocol. It was implemented using C++ in QT framework.

#### PC e-commerce website

E-commerce website for selling computer products. Integrated with PayPal. In this project I used pure PHP, HTML, CSS, JavaScript and AJAX.

## • Self-driving RC car

In my hardware project 'self-driving RC car' an electric car was created that handle three tasks: self-driving on track, stop sign and traffic light detection and front collision avoidance.In my project python was used to program Raspberry Pi and implement image processing techniques, C to program the Arduino.

- Developed cards IOS game using Objective C.
- Creating a CPU (Central Processing Unit) from scratch.

# Independent coursework

- Linux.
- Wi-Fi wireless security
- Time management and communication skills.
- Introduction to Business Administration.

# Programming languages

- JAVA, C/C++, Assembly. (very good)
- HTML, CSS, JavaScript, JQuery. (very good)
- PHP, Objective C, Python, AJAX, Servlet. (familiar)

## **Courses and Skills**

- Algorithms and Data structure.
- Object-Oriented Programming (OOP) and Design Patterns.
- Android (Retrofit, Dagger 2, Android Architecture Components, RxJava)
- Kotlin
- Networks and Software Defined Networks SDN -.
- Floodlight controller framework and Named Date Networks -NDN-.
- Git source control -Githup-
- Web Development.
- Libgdx framework.
- Compilers Design.
- Computer architecture and Assembly (Intel 16/32, Microchip PIC and MIPS).
- Operating systems and Linux.
- Database & SQL.
- Image Processing.
- · Agile -Scrum-

### Languages

- Arabic native.
- English very good.

## Professional Membership

- IEEE Membership.
- Google Developers Group –GDG- NablusMembership.

# Competitions and Awards

- IEEE Extreme Programming Competition.
- Hash Code Competition.
- NASA Space Apps Challenge.
- Startup Weekend at Bethlehem business incubator, 1st placewith app"3allmni"
- Startup Weekend at Leaders, 2nd placewith app "Sharkna"

#### **Interest Areas**

- Mobile Development.
- Networks, Named Date Networking & SDN.
- Startup environments.
- Web Development.

#### References

- Dr. Mona Nabil Demaidi Ph.D., Assistant Professor, Computer Engineering Department, An-Najah National University.
- Dr. SamerArandi Ph.D., Assistant Professor, Computer Engineering Department, An-Najah National University.