GHAITH ABU HUSSAIN

Android Developer (Flutter, Java, Kotlin, C/C++)

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https://github.com/Ghaith-Abuhussain

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SUMMARY

Experienced software developer with over 4 years of expertise in Android development, proficient in Java, Kotlin, Dart, and C/C++. Skilled in Flutter SDK and Spring Boot framework, successfully delivering projects encompassing Android apps, embedded applications, and web back-end APIs. Specialized in creating applications for Android-based POS systems like NewPos, NexGo, and Telpo Pos, with experience in GMM-HMM machine learning models. Possess strong problem-solving abilities and thrive in collaborative team environments.

EXPERIENCE

Android Application Developer

Source Code Limited Liability

08/2021 - Present | Eastern Mezzeh, Damascus, Syria

https://sourcecode.llc/EN/#:~:text=Source%20code%20limited%20liability%20co mpany,in%20the%20Syrian%20Arab%20Republic.

Source Code LLC, a prominent tech company in Syria established in 2019, focuses on innovative solutions for digital transformation projects. Specializing in embedded software development using C/C++, Java, Kotlin, and Python, as well as hardware design. Expertise in IoT, networking, and embedded Android enables us to deliver diverse projects and gain valuable industry insights.

- Participated in the development process of multiple Android applications for POS devices such as NewPos, Telpo Pos, and NexGo.
- Contributed to the development of web back-end Restful API servers using the Spring Boot framework.
- Assigned tasks to junior developers and monitored the development process, with a focus on the testing phase.
- Collaborated with cross-functional teams to define, design, and implement new features.

Embedded Software Developer

Source Code Limited Liability

09/2020 - 08/2021 | Eastern Mezzeh, Damascus, Syria

https://sourcecode.llc/EN/#:~:text=Source%20code%20limited%20liability%20co mpany,in%20the%20Syrian%20Arab%20Republic.

- Collaborated with software, firmware, and hardware engineers to develop complete embedded solutions.
- Developed embedded software solutions for a wide range of hardware, including AVR microcontrollers, STM32 microprocessors, Beaglebone black, Raspberry Pi, and many others.
- Modified existing code to replace troublesome routines with optimized content.
- Developed software within the Linux kernel.
- Designed the system architecture and keep track of the software development process, including the testing phases.
- Took part in technical interviews with new staff.

EDUCATION

Bachelor of Science in Communication Engineering

Higer Institute fore Applied Science and Technology

GPA 3.4 / 4.0

09/2015 - 09/2020

Damascus, Syria

- Advanced programming and object-oriented programming.
- Fundamentals of microcontrollers and digital signal processors.
- Embedded software and C/C++ programming.
- FPGA and VHDL programming.
- Digital signal processing and communication systems.

PROJECTS

Rakami Application (Android App, Java native)

09/2021 - 06/2022

Eastern Mezzeh, Damascus, Syria

https://drive.google.com/file/d/107D49hBoH2icXKUmle_VsVAlushXrGel/view?usp=sharing

Developed an Android native application for the NewPos device. The idea behind the application is to monitor the invoices of restaurants and shops in order to ensure accurate control of the tax values imposed on them. The application uses the POS printer to print the invoice value for the customer and assign a specific number to the invoice to ensure that the server will not save this value twice. This number is generated using a secret algorithm implemented using C/C++ in the application itself (depending on Android NDK). The application sends the data to a central server to be processed later. The application also uses the QR code scanner provided by the POS SDK to scan the printed invoices. The application can work offline if the server is turned off or the internet connection broke and the user can perform a settlement process in order to deliver the data to the central server. You can see a demo version of this app in the provided link.

EXPERIENCE

Assistant supervisor of the microcontroller laboratory

Higher Institute for Applied Science and Technology

09/2020 - 09/2023 Barzeh, Damascus, Syria

https://hiast.edu.sy/

- I was in charge of developing the hardware design and implementation of a new educational kit for the microcontroller's laboratory based on the ATmega16 microcontroller.
- Participated in the revision of practical lessons for microcontroller, digital signal processing, and mobile communication courses.
- Participated in teaching practical lessons to the fourth- and fifth-year students.
- I co-supervised a number of graduate projects.

TECHNICAL SKILLS

JAVA/KOTLIN **DART** **Flutter** **Thread programming**

Rest API **Spring Boot** **PYTHON** **Kotlin Coroutines**

Bloc/MVVM **Retrofit** **Floor Database**

Room Database **Clean Architecture**

VOLUNTEERING

SCPC Syrian Collegiate Programming Contest

Higher Institute for Applied Science and Technology

2018

At my institution, I helped organize the Syrian Collegiate Programming Contest. This experience has made me a more responsible individual capable of making judgments when necessary.

TRAINING / COURSES

Spring MVC, Spring Boot and Rest Controllers

Learn Quest Team. Instructor: Derek Parsons.
https://drive.google.com/file/d/1V7NDkOlBBwKNNJ8gdJzbV_eM5FZGnGSf/view?usp=sharing

Introduction to Embedded Systems Software and Development Environments

University of Colorado Boulder
https://drive.google.com/file/d/1V7NDkOlBBwKNNJ8gdJzbV_eM5FZGnGSf/view?usp=sharing

LANGUAGES

Arabic
Native

English
Advanced

Russian
Beginner

REFERENCES

Mohammad Mhalla, Embedded Software Developer, Volvo

mohammad.mohallatt@gmail.com

Bassel Shanwar, Head of Industrial Automation Department

00963944491674, bshanwar@gmail.com

PROJECTS

Telpo S8 POS Tester (Android, Flutter)

07/2022 - 01/2023
Eastern Mezzeh, Damascus, Syria
https://drive.google.com/file/d/1ewxd9aS30yoyov3-TIbkLzsTUfOHjL_/view?usp=sharing

This application is used to run all the functionalities that the Telpo S8 POS device provides through its SDK. The application uses a fingerprint scanner, iris verifier, NFC card reader, and barcode reader. These functionalities can be used in the biometrics of the user for authentication purposes. You can see the demo version of this application in the provided link.

Rehla Application (Freelance, Android, Flutter)

02/2023 - 07/2023
Eastern Mezzeh, Damascus, Syria
https://drive.google.com/file/d/16XPenOVMFPrkWBnnfXQz1OXRrxkilPLJ/view?usp=drive_link

This application is developed to a local trips company in order to display the trips and events available to the user in order to book them. Of course, trips, events and all their details are displayed with a map of all the areas covered by the trip. In addition, all available restaurants and hotels are also displayed. The user can create an account, view the data, and make reservations for trips or entertainment events. The application can be developed to include e-payment.
The app is developed using Flutter. You can see a demo version of this app in the provided link.

Automated Parking System (IoT, C++)

09/2020 - 09/2021
Eastern Mezzeh, Damascus, Syria
https://github.com/Ghaith-Abuhussain/Cpp_WebHost_Demo

I participated in the development of a smart parking system that included a web-hosting server C++, Linux), a central server (C++, Raspberry Pi), and parking hardware locations. The central server is in charge of interacting with the Sites as well as running the parking offline. The web-host server is in charge of interacting with the central server in order to provide instructions to the site. It is also in charge of the user's reservation and the registration of parking events.
We made use of hardware sites and cameras from the well-known Dashu company. In the GitHub link above, I provided an example of the web-host code that I was directly responsible for developing.

AWARDS

The shield of the Higher Institute of Applied Science and Technology Award

This award is given to students who have the highest grade point average in their classes.

FIND ME ONLINE

LinkedIn

https://www.linkedin.com/in/ghaith-abuhussain-a66b82221

Facebook

https://www.facebook.com/profile.php?id=100004963865616&mibextid=ZbWKw L

WhatsApp

+79851750144

PROJECTS

Speaker and Isolated Words Identification (Machine Learning, Python)

09/2018 - 01/2019

Barzeh, Damascus, Syria

https://github.com/Ghaith-Abuhussain/Speaker-Speech-Identification

The aim of this project is speaker recognition (depending on GMM "Gaussian Mixture Model") and speech recognition "isolated words" depending on HMM-GMM model This Project consists of two parts: speaker recognition and speech recognition (isolated words). The speaker recognition part is done using the GMM model depending on the MFCC features. First, the model was trained using the VoxFroge dataset. The training process was on 654 speaker (500 male and 154 female). The system acheived accuercy reached to 96.65%. In average 36s for training sample and 6s for testing sample for each user and the sampling frequency was 16KHz. Then, we built a local dataset from 32 users with 44.1KHz sampling frequency and we acheived 98.96% accuercy. the speech recognition part is done using the GMM-HMM model depending on the DTW "Dynamic Time Wrapping" Algotithm. The Trainging and testing stages are done depending on local dataset of 32 words, each word was repeated from 21 different speakers. The sampling frequency was 41.1KHz and we acheived accuercy reached to 97.82%. The system was applyed on raspberry pi 3 model B using python 3.6.