# SHAIK IMRAN

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5 years 8 months of experience in Embedded software application development and I am currently **Mirafra Software Technology** Since **11-02-2022** as Senior Software Engineer.

I worked at **PurpleTalk India Pvt Ltd** from **13-08-2018** to **11-01-2022**, as Embedded application software Engineer. In this period, I worked on **NRF52**, **ESP32** and **ESP8266** boards.

### **Professional Experience:**

1 year 8 months of experience in Client location (**Qualcomm**)

3 months of experience in Client location (**AMD**)

3 years 4 months of experience in **PurpleTalk**.

### **Professional Summary:**

- ✓ Hands on working experience in C and Data Structures.
- ✓ Having knowledge in IPC's i.e., Pipes, FIFO, Shared Memory and Message Queue.
- ✓ Having knowledge on Threads, Mutex, Semaphores and process.
- ✓ Having knowledge on FreeRTOS.
- ✓ Having knowledge on SPI, UART and I2C protocols.
- ✓ Having knowledge on BLE GATT and GAP
- ✓ Having basic knowledge on Python.
- ✓ Having knowledge on lauterbach Trace32/JTAG.
- ✓ Having knowledge on Perforce/P4 version control tool.
- ✓ Having knowledge on JIRA ticketing tool.
- ✓ Requirement gathering and feasibility analysis.
- ✓ Knowledge transfer to new team members.

#### **Technical Skills:**

Programming Skills : C and Data Structures, Basic knowledge Python.

Operating systems : Linux (Ubuntu), MAC and Windows.

IDES : Arduino, Eclipse, Segger Embedded Studio and VScode.

Debugging Tools : lauterbach Trace32/JTAG.

#### PROJECT - 1:

- Convex frame work development and Bug fixes.
  - Worked on test case development for drivers.
  - Validating those test cases on bare metal by using the test framework.
- Worked on Board bring up activities like
  - o mmu\_init, clock\_init, pmic\_init and ddr\_init
- Framework changes for the new RTL emulation builds.
- Concurrent use case executions.
- Worked on memory mapping for individual modules.
- Driver updates and framework incremental releases.
- Minor changes/issue fixes in CMM flow.
- Porting of framework SOC to SOC.

#### PROJECT - 2:

• **Project** : Glowe

Platform : NRF52 Custom board (Hardware).

• Language : C

Tools Used
Protocols
Eclipse, NRF52 SDK
I2C and UART.

• Communication : Bluetooth Low Energy

Debug ToolDomainJTAGWearable

• **Role** : Firmware Application Developer.

Worked on PWM for generation of vibration.Worked on custom Bluetooth UART Service.

Created specific data packets to transfer data from BLE device to mobile and vice versa.

Worked on I2C to save device Configurations.

➤ Integrated UART for debug prints.

➤ Worked on LED pattern creation for display.

➤ Worked for OTA for firmware updates.

Glowe project is a combination of mobile application and Glowe wearable hardware. Glowe mobile application which can be paired with Glowe wearable hardware. enables users with a unique way of communication using Colours, Vibration Sound patterns with close friends & relatives.

#### PROJECT - 3:

**Project** Airvent

**Platform** ESP32 based Custom board.

Language C

**Tools Used** Eclipse and ESP32 SDK

I2C and UART. **Protocols** 

Communication WiFi

**Domain House Hold Appliances** 

Firmware Application Developer Role

Worked on SPIFFS for data saving and restoring

Used I2C protocol for reading and writing the temperature sensor values and also for saving WIFI passwords.

➤ Integrated UART for debug prints.

➤ Worked on FOTA for firmware updates.

➤ Used JSON for data exchange between mobile and controller.

➤ Worked on WIFI Station mode and ACCESS point mode for

connecting to the central WIFI.

Airvent project provides a complete line of attic ventilation products. One among them is the Whole House Fan that is used to help hot air escape through attic and in creating a more comfortable environment inside the house for the user. Airvent wanted a solution where their customers can operate the fans from the connected network which is inside the warehouse.

### PROJECT - 4:

Project THIM

Platform NRF52 based Custom board.

Language C

**Tools Used** Eclipse and NRF52 SDK

**Protocols** I2C and UART.

Bluetooth Low Energy Communication

**Debug Tool JTAG Domain** Wearable

Firmware application Developer. Role

> ➤ Worked on custom Bluetooth UART Service. ➤ Worked on I2C to save device Configurations.

➤ Integrated UART for debug prints.

➤ Worked for OTA for firmware updates.

THIM is the sleep-tracking ring, which is more than sleep data. THIM delivers real improvement. A smartphone App is required to operate your THIM device. The App is also used to store and view your sleep data – so you can track progress over time.

# **BLE (Bluetooth Low Energy) experience:**

I have Worked on Bluetooth Low Energy application layer and have some basic Knowledge on Gatt (Generic Attributes), GAP (Generic Access Profile), BLE Services. BLE Advertisement, Connection Parameters.

## **Educational Qualifications Details:**

- B.Tech Electronics and Communication Engineering in Kuppam Engineering College Chittoor, Andhra Pradesh with 70.6%.
- 12th from International Institute of Information and Technology (IIIT) KADAPA, Andhra Pradesh with 76.4%.
- 10th Zilla Parishat High School (Boys) KADAPA, Andhra Pradesh with 89%.

## Significant Strengths

- Strong analytical and logical skills with a knack of getting solutions to problems
- Ability to work in team as well as individually to achieve goals.

# **Personal Details**

Father's Name : Mr. SHAIK MOHAMMED HANIF

Mother's Name : Ms. SHAIK JUBEDA

D.O.B : 18 April 1994 Languages : English, Telugu.

I hereby declare that the information provided above is certainly true as per the best of my knowledge.

DATE: Yours Faithfully

PLACE: Hyderabad SHAIK IMRAN