SHAIK IMRAN

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6 years of experience in Embedded software application development and I am currently working in **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:

- 2.5 years of experience in Client location (Qualcomm)
- 3 months of experience in Client location (AMD)
- 3.2 years of experience in PurpleTalk India Pvt Ltd.

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 Processes.
- ✓ 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 in Python.

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

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

Debugging Tools : lauterbach Trace32/JTAG.

PROJECT - 1:

- Worked on OpenOCD to enable debugging on various projects.
- Successfully enabled debugging with Olimex and Segger JLINK dongles.
- Developed PMIC hard reset flow for new projects and mobile chip-sets.
- Verified different debug features through positive and negative test scenarios.
- Provided support for Olimex and JLINK dongles across various projects.

PROJECT – 2:

- Worked on versal-net platform.
- Developed Stress application for Versal-Net using FreeRTOS.
- Integrated UART, I2C, DMA and TTC and it runs simultaneously all the components.
- This Application will run about one hour and uses several data exchange techniques.
- Used Semaphores and Mutex to Synchronize tasks.

PROJECT - 3:

- 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 - 4:

• Project : Glowe

• **Platform** : NRF52 Custom board (Hardware).

• Language : C

Tools Used
Protocols
Eclipse, NRF52 SDK
I2C and UART.

Communication : Bluetooth Low Energy

Debug Tool : JTAG

• **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 - 5:

• Project : Airvent

• **Platform** : ESP32 based Custom board.

• Language : C

• Tools Used : Eclipse and ESP32 SDK

• **Protocols** : I2C and UART.

• Communication : WiFi

• **Domain** : House Hold Appliances

• Role : Firmware Application Developer

➤ 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.

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

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