AKBAR SALEEM T

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**CAREER OBJECTIVE**

To be a successful professional in the field of technology and to work in the most challenging position with an organization that provides ample opportunities to learn and to contribute.

**PROFESSIONAL SUMMARY**

* Around 2.6 years experience in developing firmware to embedded system and experience in design, development, testing and implementation of embedded systems.
* Hands on experience in Integrating ,debugging and testing trusted application in trustzone(OPTEE) .
* Hands on experience in **Assembly and C programming**.
* Thorough understanding of **Linux system programming**, **Linux Kernel and Device drivers Programming.**
* Working experience in **flashing Linux U-Boot kernel and root file system images to ARM board and testing and git .**
* Hands on experience on **GNU tools and utilities**.
* Worked on **UART and I2C protocols.**
* Knowledge on  **SPI protocol.**
* Knowledge on **charecter drivers .**
* Worked on **8051, ARM7** based boards.

**PROFESSIONAL EXPERIENCE**

* Working as Software Engineer at **Votary SoftTech Pvt. Ltd** since June 2018.
* Worked as Embedded developper in **AGG** from 2015 to June 2018.

**TECHNICAL SKILLS**

* Programming Languages: Advanced C & DS, Embedded C, Basic Python.
* Linux System Programming : Basic I/O calls, File Operations, Memory management,

Process management, Threads, IPC mechanisms, Signals.

* Linux kernel &device driver: Linux OS internals & OS concepts, Porting, character drivers( UART, I2C).
* Communication Standards :I2C, UART and SPI.
* Compiler Tool chain : gcc, arm tool chain.
* Debugging tools :gdb, Strace, cscope.
* Developing tools : Keil.
* Operating Systems :Linux (Ubuntu).
* Version control tools : git

**EDUCATION QUALIFICATION**

* M.Tech in EMBEDDED SYSTEMS at AITS Rajampet 2017.
* B.Tech in ECE at AITS Rajampet 2015.

**PROJECTS:**

**MSM8909/8905**

**Hardware and software tools used** : LYF device, Qflash tool, QFIL tool,Ubantu 14.04 version.

**Roles and responsibilities:**

* Source code cloned from github.
* Built that source code for BB device and ckt device.
* Flashed LYF device using Qflash tool.
* Flashed ckt device using QFIL tool.
* Collected logs by using adb tool.
* Fixed a bug related to bluetooth in ckt device.
* Verified build version and applications working in LYF mobile .

**Uniform Platform for Trusted Application**

**Hardware and software tools used:** RPI3 board, gtk terminal, gdb , QEMU.

**Description :**

* This frame work used to work on different platforms(different secure OS like OPTEE, QEE).
* Implementing this frame work to platform independent.
* This frame work configure the application to particular platform based on request.
* After configuring to particular platform the application processed according to its requirement.

**Role and responsibility** :

* Developped application in C language .
* Integrated that application with trusted application of trust zone .
* Written application for finding OS information by implementing own APIs.
* Tested this application using QEMU.

**Weather Monitoring System.**

**Organization : AGG**

**Hardware:** LPC2148, Temperature sensor, Humidity sensor, GSM Module,LCD.

**Tools:** Keil μVision.

**Description:**

* The project involves designing and developing for collecting and monitoring climatic condition.
* It send data by using GSM module and climate details displayed on LCD screen.

**Roles and Responsibilities:**

* Interface Multiple Sensors to respective controller.
* Developed Source Code for sensors using Keil μ Vision.
* Sensors and GSM modules are interfaced with ARM board
* Capture the data from sensors and send data with the help of GSM module.

**Development of I2C client application for EEPROM.**

**Organization: AGG**

**Hardware:** S3C2410, EEPROM

**Platform:** Linux.

**Description:**

* The aim of the project is to interface EEPROM with S3C2410.
* AT24C256 supports I2C communication protocol.
* It stores the data and communicates to the SOC by I2C communication.
* For this, we have analyzed the S3C2410 master I2C code and configured the kernel for EEPROM driver support.

**Role & Responsibilities:**

* Developer and validation of driver code for EEPROM device.
* Study of S3C2410 datasheet and understand functionality and programming model of the device.
* Analyzing the connectivity between SOC and EEPROM.
* Written application for testing the driver.

**Automatic** **Crop Monitoring Using Embedded System**

**Organization: AITS**

**Environment:** Embedded C, ARM Keil, Flash magic, RS232 cable.

**Hardware:** ARM7 (LPC2148) controller board , sensors, GSM module, Motor pump.

**Description :**

* This embedded system built around LPC2148 microcontroller, motor pump, soil moisture sensor.
* By using electrical fence, RFID module, and rain sensor and GSM module crop protected from wild animals, thieves, diseases and sends information to owner.

**Role & Responsibilities:**

* Interface Sensors to LPC2148 controller.
* Developed Source Code for sensors using Keil μ Vision.