M.JAIVVIGNESH

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Career Objective

To seek a position in an esteemed organization, where I can work in an environment which provides challenging career, scope for continuous learning and where growth is commensurate to one's effort and performance.

Professional Summary (2.8year's Experience)

- Experience in C Programming on Linux Platform and on Embedded C.

- Experience in Cross Compilation to target board.

- Understanding of OS concepts specially OS Start up, System calls, File system, Memory Management, Process Management, Semaphore and Threads, IPC, Multi-Threading, Device drivers basics, TCP/UDP programming.

- Worked with chip peripheral UART, I2C, SPI, Timers, Watchdog and DMA.

- Gathered and defined customer requirements to develop clear specifications for the Application.

- Documented all software development methodologies in technical manuals to be used by developer's in future projects

- Evaluated project requirements and specifications and developed software application that surpassed client's (**LRDE Bangalore**) expectations.

- Working with Government bodies for establishment of smart cities through Lorawan technology.

Professional Experience

- Worked as **Embedded Application developer** in Research & Development with **Data Patterns** from April-2018 to July-2019.

- Worked as **Associate Firmware Engineer** in **CyberEye Research Lab & Security Solutions Pvt Ltd** from August-2019 to February-2020.

- Working as **Software Engineer** in **Qubercomm Technologies India Pvt Ltd** from March-2020 to till date.

Technical Skills

- Editors   : vim and Eclipse, git.

- Programming Languages   : C, Data Structures, Embedded C, Embedded Linux.

- Compiler   : GNU

- Development & Debugging Tools   : GCC, GDB

- OS Platforms   : Linux

- Protocols   : I2C, SPI, UART

- Domain   : Linux Interface, U-boot.

- SOC's   : BCM2835, AM335x, SAMR34, RN2483

Academic Profile

- B.E. (ECE) from Jeppiaar SRR Engineering College, during 2012-16 with First-class.

Major Projects Handled and Involved

Project: 1

Project Title (IOT) : **Smart Home Gateway**

Role Development : Application development

Tools : Eclipse, minicom, vim editor

Project Description:

The aim of the project is developing the Home Gateway. This gateway will communicate all home device (camera, flood sensor, thermostat etc) and Controlling the all home devices through the web browser and mobile application.

Responsibilities:

- Developed the application for home gateway.
- Interfaced the **Z-Wave** wireless module with Raspberry pi3.

Project: 2

Project Title : **Beam Steering Unit (RADAR Application)**

Role : Firmware Application development using AM335X.

Development Tools : Eclipse, vim editor.

Project Description:

The aim of the project is developing Application which is responsible for propagating the beam parameters to all the sub units of the antenna of the RADAR for the requested beam implementation.

Responsibilities:

Developing the Firmware Application in the modules for performing the following tasks,

- Receive beam requests from GUI Application via Ethernet communication and calculate the phase and amplitude of each radiation element for beam shape and direction control.
- Transfer calculated beam data to RF modules.
- Operate and monitor the status of the RF modules.

- Distribute timing signal to the antenna units.

- Support calibration process of the active array.

- Support BIT status collecting.

Project: 3

Project Title	**: RN2483 Drop in Replacement**
Role	: Firmware Application development using RN2483 and SAMR34.
Development Tools	: Atmel studio 7

Project Description:

The aim of the project is developing Application which is responsible for establishing communication between module and server.

Responsibilities:

Developing Low power Firmware application on Lorawan stack for performing following tasks,

- Secure join of device to the network.

- Data transmission from module to application server.

- Validation of transmission and reception data.

- Controlling the transmission power of data transmission.

- Controlling frequency of Lora.

- Controlling the data transmission for low power Consumption of the device.

Project: 4

Project Title	**: WLAN Development and Support**
Role	**:** Development and Bug Fixing of QCA 11ac/11ax platforms
Development Tools	**:** Vi Editor, cscope, ctags

Project Description:

The aim of the project is to support for Access Point's Application and driver.

Responsibilities:

- Worked on (11ax/11ac host) WLAN Host application development and support.

- Support in Zigbee and BLE application software.

Profile:

- Name   : M Jaivvignesh

- Father Name   : M Manivel

- Date of Birth   : 06 -12-1994

- Marital Status   : Single

- Sex   : Male

- Nationality   : Indian

- Languages Known   : English

Declaration:

I hereby declare that all the information in this document is accurate and true to the best of my knowledge.

Place: Chennai   **(M.Jaivvignesh)**