

Naresh. M

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I **M. Naresh** working in **Linkwell Telesystems Private Limited**, Hyderabad as R&D Assist engineer (formerly known as Visiontek) with over a 3 year 5 Months of experience. In this period I worked on I/O driver implementation and interfaced GPIO Based Matrix KEYPAD(8*8) on Arm cortex A9 Board, Developed APIs for the above mentioned driver.

Professional Summary:

- ✓ Development of RHMS Device Management Application for POS devices.
- ✓ Hands of working experience in C, Data Structure, and Linux internals, Device driver, debuggers (GDB).
- ✓ Worked on Linux Kernel Programming and User space programming.
- ✓ Good knowledge on shell scripting
- ✓ Good knowledge on the Threads, process Management, Memory Management.
- ✓ Good at IPC's i.e. FIFO, Shared Memory, Pipes. Knowledge on Semaphore, Mutex Locking mechanisms (spin-locks).
- ✓ Knowledge and exposure to Linux Kernel, File systems.
- ✓ Good Knowledge on Interrupts
- ✓ Worked on Cross compilation of Open source libraries such as Busy-Box , 3.0.35 kernel.
- ✓ Experience in Integration & Debugging different types of modules on POS terminal like seiko thermal printer, keypad matrix,GSM.
- ✓ Knowledge on Kermit.
- ✓ Worked on building cross tool-chains and root file system.
- ✓ Knowledge on Cross compilation tools like Buildroot.
- ✓ Requirement gathering and feasibility analysis.
- ✓ Knowledge transfer to new team members.

Educational Qualifications Details:

DISCIPLINE	INSTITUTE	BOARD	YEAR OF PASS	PERCENTAGE
B.Tech in ECE	CMR College of Engineering & Technology, medchal	JNTU Hyderabad	2016	69.50%
Diploma in ECE	Indur institute of engineering and technology, siddipet	SBTET	2013	80.58%
SSC	Ravindra High School, siddipet	Board of Secondary Education	2010	86.50%

Training and Certification

Completed **Embedded system Design** from **VECTOR INDIA**, Hyderabad.

Technical Skills:

Programming Skills : C, Data Structures, Device Drivers, Kernel Programming
Operating systems : Linux(ubuntu-14.04/16.04), fedora.
Scripting Languages : Shell Scripting
Compilers : GNU C/C++(4.1.2,4.6.2 for ARM)
Tools : Vi, Kermit, gedit

Project Details:

Company: Linkwell Telesystems Pvt Ltd, Hyderabad

PROJECT#1:

- **Project** : **I/O Driver Implementation**
- **Platform** : (Software) Linux arm
(Hardware) IMX6 Sololite based board.
- **Language** : C, Linux
- **Architecture Type** : Cortex A9
- **Tools Used** : GCC Compiler with freescale tool-chain
- **Role** : System Programmer
- **Domain** : **POINT OF SALE (POS) Device**

This driver basically developed for power control of all the modules. This driver was developed for pos machine in which we are accessing the GPIO pins to do the power control of all peripheral. This is compiled with linux-3.0.35 kernel. Myself gone through the schematic of the pos device and wrote the driver by accessing the various gpio pins for the respective peripherals.

PROJECT#2:

- **Project** : **GPIO Based (8*8) Qwerty Matrix keypad**
- **Platform** : (Software) Linux arm
(Hardware) IMX6 Sololite based board.
- **Architecture Type** : Cortex A9
- **Language** : C, Linux
- **Tools Used** : GCC Compiler with freescale tool-chain
- **Role** : System Programmer
- **Domain** : **POINT OF SALE (POS) Device**

This project was related to GPIO Based(8*8) Matrix keypad interface. myself configured the respective row and column GPIO, Initialized the row and column gpio pin in board init file. Calculated the respective hex values for the configured keys and implemented the logic for SHIFT and FUNCTION key operation and special character in matrix keypad driver file present in linux-3.0.35 kernel and drive the Qwerty matrix keypad.

PROJECT#3:

- **Project** : Remote Health Management System (RHMS) & Device Management
- **Platform** : (Software) Linux arm
(Hardware) IMX6 Sololite based board.
- **Language** : C, Linux
- **Architecture Type** : Cortex A9
- **Tools Used** : GCC Compiler with freescale tool-chain
- **Role** : Development and Integration.
- **Domain** : **POINT OF SALE (POS) Device**

Upgrading the Firmware of electronic point of sale devices (EPOS) remotely. Establishing client server communication between the device and server and updating the status of I/O peripherals of the device to server and upgrade EPOS firmware field devices. My self developed RHMS and Device Management all functionalities.

Personal Details

Father's Name : Mr. Narsaiah
Mother's Name : Ms. Kanukavva
D.O.B : 01 July 1995
Languages : English, Telugu.

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

DATE : 22-01-2021
PLACE: Hyderabad

M. Naresh