

OBJECTIVE:

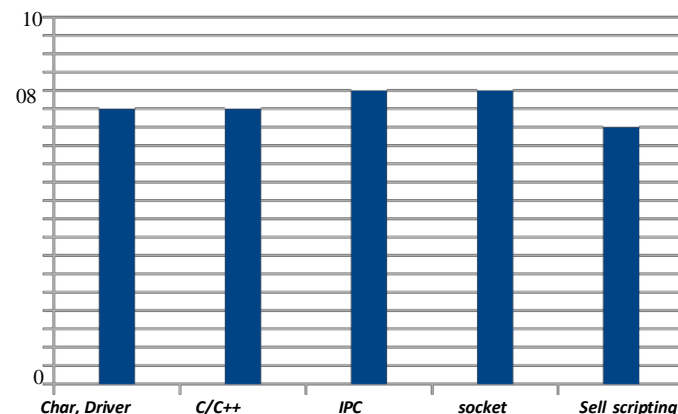
To work in a innovative and competitive organization, where i can use my knowledge and skills to get solutions in time and learn to grow as a technocrat continuously.

SUMMARY:

- 5.2 years of experience in Embedded software development.
- Understand the architecture of Character Device Drivers, Insert and Register Character Device Driver with the Linux Kernel.
- Have a good understanding about complete initialization of Character Device Driver.
- Implemented following operation on Character Device Driver. : Open, Release, Write, Read, Lseek, Trim.
- Implemented the following synchronization techniques on the simultaneous operations on through the driver. : semaphore, completion, spinlock, blocking IO, waitqueues.
- Implemented network programming involving Sockets with advanced family protocols: AF_UNIX and AF_INET.
- Understand Process Duplication, Process Replacing using fork.
- Inter-Process Communication: Pipes, FIFO, Message Queues, Shared Memory.
- Implement synchronization using Semaphore and Mutex in user space.
- Have a good understanding about gcc compiler and debug complex C programs using gdb.
- Have a good understanding of Project development tools like Make, Makefile.
- Write Shell scripts using bash and controlling Scripts with ease, Debug shell scripts.
- Understand Object Oriented Programming Concepts.
- Experience in Telecom Industry (GSM & WCDMA based wireless network) as RF Engineer.
- SCFT of New Sites, Pre Drive & Post Drive. And Resolving KPI Sites
- Convert logfile into MapInfo format and generate the report for taking necessary action.
- Physically optimize the sites.
- Resolving the BU complaint and customer Complaint related to network.
- 2G and 3G Optimization, Drive test, Acceptance test and Physical Verification.
- Monitor, analyze statistical and drive test data to improve Key performance indicators such as dropped calls, blocked calls, origination failures.

KEY SKILLS:

- Data Structures using C, C++, gcc, g++ and Shell script
- Editor : VIM and Compiler GCC
- Development Tools – RCS
- File IO
- IPC and Socket Programming
- Threads and Thread Semaphores
- Mutex and Mutex Semaphores
- Peripheral controllers :GPIO, SPI, I2C, UART, PWM, ADC, DAC, WDT,
- Character Device Driver and Parallel Port Driver.



EMBLOGIC EMBEDDED TECHNOLOGIES PVT LTD.

1. Parallel Port Device Driver Development

Description: This project was based to design, sending and receiving data from and to other system connected by Parallel Port. Checking the working on Data Register, Status Register and Control Register by sending and receiving data on data port.

We used inb and outb systemcall to read and write data on register during communication between two machine by parallel port. Language: C, Shell Scripting Editor: Vim.

PROJECTS COMPLETED :

2. Character Device Driver Development:

Company: Chetu inc Pvt Ltd.

Description: A character driver is one that transfers data directly to and from a user process.

This Project aims at writing a device driver for Simple Character Utility for Loading Localities (SCULL).

In this, SCULL is implemented as linked list where quantum size which represent register size in device and qset size which represent number of registers in one node of link list .Synchronization Technique - semaphore, completion and blocking I/O, spinlock is applied for multithreaded application to avoid synchronization problem.

Project is completed.

Language: C, Shell Scripting.

Editor: Vim.

3. Simple Library Inventory Management Systems:

Company: Chetu inc Pvt. Ltd..

Description: Aim of this project is to handle the Books, Periodicals and DVDs in Library.

Main menu function is made to display the contents and select the operation on the items accordingly. File IO is used to read the contents from the file. Project completed.

Language: C++, Shell Scripting.

Editor: Vim.

4. Client Server communication using Inter Process Communication:

Company: Cimcon software Pvt Ltd.

Description: This Project involves the use of system programming. It aims at implementing a Server Program where some clients (requesting clients) would send a request to the server and the server would further find the appropriate client (processing client) to process the request. The server then invokes the new processing client so as to process the request. The new client (processing client) should then send the request back to the server, which then sends it forward to the requesting client. Requesting client sends a request to the server along with an operator and operands to be processed using PIPES, FIFO, MESSAGE QUEUES or SHARED MEMORY. Server sends the request to appropriate Processing client (processing client), based on operator, using PIPE or by execl call in fork. Processing Client then processed the data accepted from the server, after processing sends the result back to the server using MESSAGE QUEUES. The server in turn sends the result to client (requesting client) using Message Queues or FIFO. There synchronization between clients is provided using semaphores and Mutex synchronization techniques. Language: C, Shell Scripting , Editor: Vim.

5. Client-Server communication using Sockets and threads:

Company: Cimcon software India Pvt Ltd.

Description: FTP client-server architecture using THREADS and SOCKETS has been designed in which multiple clients can access the server in order to retrieve or send the files. Multiple clients can access the server at the same time with the help of threads, as each client is associated with a different thread. Language: C, Shell Scripting Editor: Vim.

Project 4: Lighting control outdoor device.

Company: Cimcon Software Pvt. Ltd.

This project based on Ts4900 module which is Connected with Ip Camera and multiple sensors like Gunshot, Oizom , Hostan radar ..etc. This device collects lighting data and all hosted sensor data to transfer AWS cloud using MQTT or Over LTE.

My Role.

- Worked on WIFI using WPA supplicant and Bluetooth for SILEX and TI IC.
- Worked on I2C driver for I2c bridge (SC16IS752).
- Worked on I2C driver for POE power IC (LTC4266A).
- Worked on SPI drive for SPI bridge (SC16IS752).
- Worked on GPIO driver for check Tilt status.
- Support NFS and USB boot in u-boot env file.
- Setup NFS server and boot device.
- Worked on Serial device driver as below.
 - GPS application.
 - Hoston radar sensor.
 - Road-watch sensor
 - Raystar TFT(rff700).
 - Modbus protocol for Oizom serial based sensor.
- Worked on TCP Server and Client for Gun shot and Axis sound sensor.
- Worked on LTE Module using AT command and ppp0 driver. .
- Worked on Watchdog application to check CPU hang.
- Worked on system service and cron job for automatic start service after reboot device.
- Worked on json for configuration application and cloud side.

WORK EXPERIENCE: - 5.2 + YEARS.

Relevant Sector Work Experience: 5.2 Year.

1. L&T Ltd (Oct 2021 to present).
2. Cimcon Software India Pvt Ltd (Dec 2019 to Sep 2021).
3. CHETU INC Pvt Ltd (Dec 2018 to Nov 2019).

ACADEMIC PROFILE:

2015 B.Tech. (Electronics & Communication Engg.) from JNTUH, Hyderabad with First Class 12th in Science (2011) from B.S.E.B, G.K.P.D.C(SAMASTIPUR) with Marks 56%. 2009 10th from B.S.E.B, Hajipur with Marks 58%.

PERSONAL PROFILE:

Father's Name : Ram Bilash Singh.
Nationality : Indian.
Gender : Male.
D.O.B : 10/03/1994.
Languages Known : English, Hindi,

HOBBIES & INTEREST: Reading Newspapers and Magazines, Physical Fitness, Running, Listening Music, Reading auto- biography, Internet Surfing and social networking, Solving puzzles.

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