KATHIRVEL P
Electronics And Communication Engineer.
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PROFESSIONAL SUMMARY

6.6 Years of work experience in **Embedded Software Development.**

- Hands on Experience in **Embedded C Language.**
- Hands on Experience in **C Language.**
- Experience in **Embedded Linux application programming.**
- Good Experience in **8,16,32 Bit Microcontrollers and Architecture.**
- Experience in **RTOS.**
- Experience in Communication Protocols using **I2C, UART, SPI.**
- Worked on **ADC, TIMERS, RELAY, EEPROM, OLED** with a Microcontroller.
- Experience in **BareMetal** Programming.
- Experience in D**esign, Development, Analysis** and **Support** phases in the projects.
- Experience in **SRS analysis**, **Functional** testing.
- Experience in **Version Control Management(gitlab)**.
- Experience **SDLC.**
- Knowledge in **CAN protocol.**
- Knowledge in **Bootloader.**

PRODUCT SKILLS:

Programming Languages and Micro controllers	C and Embedded C, STM32, PIC16f877A, Arm Processor.
IDE and Compiler	STM32 CUBE-IDE, MPLAB-IDE, Visual Studio Code, ECLIPSE IDE. GCC compiler, GDB Debugger.
Operating System	Ubuntu 20.04, Windows 7, 8 & 10.
Version control and Static code analyzer	Gitlab, Perforce, cppcheck, JIRA.

RESPONSIBILITIES

- System Design.
- Software Development.
- Hardware Integration.
- Testing and Debugging.
- Optimization and Performance.
- Documentation.
- Maintenance and Support.

PROFESSIONAL EXPERIENCE

Employer : HCL TECHNOLOGIES.
Duration : 10th September 2021– 20th September 2024.
Designation : Lead Engineer.

Employer : Nanotech Electronics , Salem.
Duration : February 2018– August 2021.
Designation : Embedded Engineer.

PROJECT DETAILS-1

Name of project	Arthroscopy Equipment.
Environment	Embedded Linux, Embedded C.

- It is an embedded device to enable video-based navigation in connection the arthroscopic and endoscopic medical surgical system.
- The arthroscope is a slender, tube-like instrument equipped with a small camera and light source. It is inserted into the joint through a small incision, allowing the surgeon to visualize the interior of the joint on a monitor.
- It captures high-definition images of the inside of the joint and transmits them to a monitor, allowing the surgeon to see real-time images of the joint's structures.
- Application logs will be stored in syslog directory.

PROJECT DETAILS-2

Name of project	CADD SOLIS Infusion System
Environment	Embedded C, RTOS.

- CADD SOLIS Infusion pumps are designed to deliver fluids into a patient's body at a controlled rate and with precise dosing. They can be programmed to administer fluids continuously or intermittently over a set period.
- Patient-Controlled Analgesia These allow patients to self-administer pain medication within preset limits.
- Designed Drug libraries with pre-programmed medication dosing limits and infusion protocols
- CADD infusion pumps are equipped with safety features such as alarms for occlusions (blockages), air bubbles, and low battery levels.

PROJECT DETAILS-3

Name of project	Digital Fuel Indicator Display
Environment	Embedded C.

- The objective of this project is to determine the amount of fuel remaining in the fuel tank at any particular instance to avoid the unexpected fuel shortage.
- While driving the vehicle might be difficult to find the remaining fuel level with regular analog fuel level indicator which might leads to unaware of the refilling the fuel tank.
- Here the sensors are placed at various places to sense the fuel level and the signals from these sensors are sent to the microcontroller unit to decide the exact level information.
- Here the level information are displayed in terms of percentage and these information are preprogrammed according to the sensor position

- The buzzer indication is set to execute once for medium level and high level and it will repeat continuously for the low level until the user press the key.

PROJECT DETAILS-4

Name of project	Electronic Temperature Controller
Environment	Embedded C.

- This project mainly involves in monitoring and controlling the temperature of the dry type transformers. Data logging feature also incorporated for referring events with real time stamp.
- Involved in planning activities of selecting the features and the logic of the relays.
- Gathering of the temperature and relay status related commands for communication and data acquisition.
- Developed the sub modules that are required to be configured, prior conducting the automatic intelligent data logging.

EDUCATIONAL QUALIFICATIONS

Qualification	Board/University	Year of passing	Percentage
B.E (ECE)	R.V.S Technical Campus, Coimbatore.	2016	64.4 (CGPA)
HSC	Govt.Hr.Sec.School, Puduppalayam	2012	64%
SSLC	Govt.Hr.Sec.School, Singalandhapuram	2010	93%

Personal Details

Father's Name : Mr. Palanisamy R
Permanent Address : 2/162 Thammanaickanpatty,
Bodinaickanpatty (PO),
Rasipuram (Tk),
Namakkal (Dt). Tamilnadu-637412.
Date of Birth : 12-06-1995.
Marital status : Married.
Languages Known : English, Tamil, Telugu.

Declaration:

I hereby ascertain that the information is true to the best of my knowledge and there is no false statements.

Yours sincerely
(Kathirvel P).