Mohammed Shameem Akhtar
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Hyderabad.

Professional Summary:

- 6 years of experience as Embedded Firmware Engineer.
- Experienced in code development for 8051, NXP LPC2478, STM32, TI TIVA Microcontrollers, WIFI Module.
- Experienced in Linux Internals, RTOS Inter-process communication, Threads synchronization & scheduling.
- Experienced in Bare Metal programming and debugging.
- Experienced in Software code bugs fixing using GDB, JTAG, XDS debugger.
- Experienced in code development for Single Linked list Data structure.
- Experienced in RS232 Interface, UART, SPI, I2C, MIL1553, CAN Serial Data Transfer protocols.
- Well versed with Git, TCP/IP suite & UDP.
- Experienced in testing the DRAM, Static RAM, DPRAM, NOR, NAND memories
- A good analytical mind with willingness & ability to quickly learn new technologies.

Technical Skills:

Skills	Description
Programming Languages	Embedded C, C++, Python, Assembly Language.
Operating Systems	Linux, ThreadX & Quadros RTOS.
Processors/Controllers	NXP LPC2478, Tiva TM4C1294NCPDT, Virtex 7, Artix 7, NodeMCU, STM 32.
Tools	Git, Modbus Poll, Putty, Wireshark.
Technologies/Protocols	UART, I2C, SPI, MIL1553, LHMI, CAN, UDP.

Professional Experience:

General Electric **July 2022 to Till date**
Designation – Embedded Software Engineer
Roles & Responsibilities : Research and Development of Transformer Health Monitoring Device.

GND Solutions India Pvt. Ltd. **Nov 2019 – July 2022**
Designation – Embedded Software Engineer
Roles & Responsibilities : Research and Development of LHMI Module in REX610 Power monitor Device.

Dexcel Electronics Designs. **Nov 2017 – Nov 2019**
Designation – Firmware Engineer
Roles & Responsibilities: Software Development and Testing of Aerospace & Military embedded systems.

Projects

Project 1	**Description (Module Developer)**
Name	**DGA 900 Transformer Health Monitoring Device**
Organization	GE
Environment	Linux OS, Cortex A -7 processor, MS Visual Studio IDE, Embedded C
Role	Develop, Test Support, post production support.
Description	DGA900 Monitores Tranformer's Oil gas levels, Temperature, current & Voltages faults.
Responsibilities	Developed Application code on Linux OS. Developed Diagnostic Management system to control & stabilize the faulty alarms on detecting the current, voltage Faults.

Project 2	**Description (Module Developer)**
Name	**REX610 Relay**
Organization	ABB
Environment	Cortex A-8, CCS studio, XDS Debugger, AM335 SOM, Quadros RTOS, Embedded C
Role	Development, Bug Fixing, post production support.
Description	REX610 is Current and voltage Monitoring Device.
Responsibilities	Developed Application code on Quadros RTOS. Developed Middleware code for Local Human Machine Interfaces and Fixed the LHMI Bugs

Project 3	**Description (Module Developer)**
Name	**Voice Controlled Home Automation using Amazon Alexa Echo dot.**
Organization	GND SOLUTIONS Pvt Ltd.
Environment	Alexa Echo Dot, NodeMCU, Arduino IDE, ESP8266 Wifi Module, Embedded C
Role	Development and testing
Description	Home Automation IOT
Responsibilities	Developed a Software to receive commands from Alexa Echo Dot and enables the switches in NodeMCU with ESP8266 wifi Module.

Project 4	**Description (Developer)**
Name	**DARE Display processor 30**
Organization	DEXCEL ELECTRONICS DESIGNS.
Environment	Windriver SDK, Artix 7 FPGA, LPC2478 Microcontroller, Bare Metal Programming, Embedded C
Role	Development and testing
Description	Display processor 30 is Aircraft device which displays Graphical symbols on HUD, MFD Displays.
Responsibilities	Developed Low level driver for HUD Display, MFD Display and MIL1553 protocol of Artix-7 FPGA, Developed and tested Middleware code. Developed UDP client program to receive commands at Board side from User Interface. Developed low level driver for UART & SPI Interface of LPC2478 controller to communicate with DPRAM, SRAM, NOR,NAND memories. Developed low level driver for Keypad, LCD interface of LPC2478 controller.

Project 5	Description
Name	**iVPRSM (Integrated Video Playback, Recording and Streaming Module)**
Organization	DEXCEL ELECTRONICS DESIGNS.
Environment	DM368 Processor, Linux, Qt creator, C++, Texas TM4C1294NCPDT microcontroller, LINUX OS
Role	Development and testing
Description	Objective of this project is to stream live video on the display through TCP.
Responsibilities	Developed the OS Threads to collect and Transfer the live Video data from Transmitter to Receiver end with TCP network protocol.

Educational Qualification:

Course	College/ School	Year of Passing	%Marks
PG- Embedded systems.	CDAC ACTS, Hyderabad	Aug 2017	60%
B.E.(Electronics & Communication)	MJCET, Hyderabad	July 2016	77.9%
Intermediate	Pragathi Junior college, Nalgonda	May 2012	95%
10th	Krishnaveni School, Nalgonda	May 2010	90%

Diploma in Embedded System Design - From CDAC ACTS, Hyderabad

- 32 bit micro controllers (ARM) – Basic Software Design of UART, SPI, LCD, Keypad.
- Operating system concepts – Linux commands,Inter Process Communication, Process Scheduling.

Declaration:

I hereby declare that the information furnished above is true to the best ofmy knowledge.

Date: 21th January -2024 (Mohammed Shameem Akhtar)