Neelakanta Gupta N L

B.E. (Electronics & Communication)
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Experience Summary:

17 years of relevant experience in **Embedded /Firmware Software Development and Testing**. Available Immediate for a challenging position.

- Currently working as Technical Consultant , involved in IOT system projects using C, duration 5 years.

- Worked in **Infineon Technologies India Pvt Ltd** as Sr. Software Engineer II, Leading a team of four people, since Aug- 2006 to Nov 2013 having experience in development and testing of Low Level Driver software for XC800CLM, XC2287, TC1798, TC1793, XMC4000 and XMC1000 Microcontrollers making 7.4 years of experience.

- 1 year and 10 months of experience at **Sheeba Computers** deputed to **Aeronautical Development Establishment** as Software Engineer in development and testing of Display system software of LCA aircraft.

- 2.5 years experience at **Symmetric Technologies Pvt Ltd** deputed to **Aeronautical Development Agency** as Software Engineer in testing of Integrated Flight Control System software of LCA aircraft.

Software Skill set summary:

Operating Systems	:	MS-DOS, Windows, Linux
Programming Languages	:	Embedded C, C++, ADA - 83, ADA - 95, Visual Basic.
RTOS Concepts	:	IPC, Semaphore, Mutex, Queues.
Assembly Languages	:	8085, 8086
Microcontrollers	:	Intel 8085, Intel 8051, Infineon - 8bit controllers: XC800CLM, XC866, XC836, XC2287, Infineon 16 bit controllers: XC2267, XC2210U, XC2220U, XE167FH, XE169FH,XE160FU, XE161FL Infineon 32 bit Controllers: TC1798, TC1793, TC1791, TC1767, TC1784 ARM Controllers - XMC4000, XMC1000
Protocols/peripherals	:	CCU6, CAN, CC2/1, WDT, ADC, ERU, ASC, SSC, I2C, GPTA, Bluetooth, Wifi, GSM, GPS, IOT Autosar, Expert in ISO26262 standard, DO178B.
Sensors	:	IR sensors, Ultrasonic sensor, water Temperature sensor, Temperature sensor LM35, Humidity sensor

Microcontroller Boards	:	XMC4400, XMC1100, TC1798, TC1767 boards, XC2287, XC2267 boards, Arduino Board, Raspberry PI Boards
Tools	:	Keil and Tasking Compilers, GNU compiler, PLS Debugger
Software /Bus Standards	:	RS-422, MIL-STD-1553B, DO-178B.

Projects Summary:

1. Project Title: Home Automation System using IOT	
Organization	HRT Technology, Bangalore.
Programming Language	C
Operating System	Windows
Team size	1
Duration	5 years
Role	Design Development
Responsibilities	Design , coding
Environment	Arduino board, Raspberry pi board
Description: Home automation system we can control the AC, Lights, Fan, TV through IOT. All these devices are connected to Arduino board through relay switches. An wifi module interfaced to arduino board. The data is updated to the cloud - thingspeak. The devices can be controlled by accessing the thingspeak through mobile or Internet.	

2. Project Title: Microcontroller Driver Software Development and Testing	
Organization	Infineon Technologies Pvt Ltd, Bangalore.
Programming Language	C
Operating System	Windows 98
Coding Standard	MISRA C
Team size	15
Duration	Aug 2006 to Nov 2013 --- 7 years and 4 months.
Role	Sr. Software Engineer II
Responsibilities	I am responsible for, Leading a team of four people - Development & Testing of the Low Level driver for the modules CAN, GPTA, PORTS, ADC, ASC, SSC, I2C, CCU6, CC2, CC1, EBC - Architecture and Design Documents preparation. - Test Plan and Test Report Documents preparation. - Participated in review of modules
Environment	Infineon – Tricore TC1793, TC1791, Tricore 1798 Microcontroller, Tricore 1767 Microcontroller, XC2287M, XC2267M, XC2210U, XC2220U, XE167FH, XE169FH,XE160FU, XE161FL, XE167FM, XC800CLM, XC866, XC836 Microcontrollers, ARM Controllers - XMC4000, XMC1000

	Tasking Viper compiler, Keil Compiler, GNU compiler, UVP test automation tool.

Description:

The scope of this project is to develop (enhance) and testing the Low level drivers for different Microcontroller peripherals like CCU6, CC2, CAN, GPTA, ASC, SSC, I2C, ADC, PORTS etc.

The driver code contains the Init functions and APIs for each peripheral. User can add the application specific code into this software and then make the final software for the project.

3. Project Title: Development and Testing of Display System Software for Light Combat Aircraft - TD2 under Visual C++ Environment.	
Organization	Aeronautical Development Establishment, Bangalore.
Programming Language	C
Operating System	Windows 98
Team size	12
Duration	Oct-2004 to Jul-2006 -------- 1 year and 10 months
Role	Software Engineer
Responsibilities	I am responsible for, - Programming and Unit Testing, Module Testing and Integration testing. - Test Plan and Test report preparation
Environment	VC++, Display System Setup

Description:

The Display System Consists of the Following LRUs(Line Replaceable Unit):

- Two color Multi Functional Displays (MFDs).
- One Head UP Display (HUD)
- Two Display Processors (DPs)

In normal mode one of the DPs drives all the display surfaces namely the HUD and two MFDs while other is in standby mode and does only the periodical self test. In the event of failure of one DP the other DP takes over under instructions from the Mission Computer and drives all the three display surfaces. Both the DPs are interfaced via Remote Terminals (RT's) to the MIL-STD-1553B avionics bus. It is having serial links (RS 422) to the display heads and Multi Functional rotary switch (MFR). The two DPs are identical in all respects except the MIL-STD-1553B RT addresses.

4. Project Title: Testing of Military/ Integrated Flight Control System, "Control Laws Package" Software for Light Combat Aircraft - TD2.	
Organization	Aeronautical Development Agency, Bangalore.
Programming Language	ADA – 83
Operating System	VMS
Team size	8

Duration	Jun -2001 to Nov-2003 ----------2.5years
Role	Software Engineer
Responsibilities	I am responsible for, - Unit Testing, Module Testing and Integration testing. - Test Plan and Test report preparation
Environment	VMS operating System, I-960 Board
Description: The aim of this software is to get the different control signals from different control points like the Pilot Stick, Rudder Pedals, Aircraft motion Feedback signals from Quadraflux rate gyroes (Pitch, Yaw, Roll) and Accelerometers (Normal and Lateral), Multiple angle of attack signals and side slip (AOSS) signals and Air-data signals for controlling the actuators through quadraflux Digital Flight Control Computer (DFCC) system using FLY - BY- WIRE control system for normal flying as well as Flying under certain failure conditions.	

Personnel Details:

Name	Neelakanta Gupta N L
Marital Status	Married
Date of Birth	17-Apr-1978
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Email ID	neelguptanl@gmail.com , neelguptanl@rediffmail.com
Educational Qualification	Bachelor of Engineering with Electronics & Communication
Institution	Kalpataru Institute of Technology, Tiptur, Bangalore University
Year Qualified	1999