Keyur Varia

Firmware Engineer
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WORK EXPERIENCE

Dec 2021–Current

HCL Technologies, *Bengaluru*, Karnataka
Technical Lead
- Involved in the firmware development of multi functional printers for one of the reputed product company: Hewlett-Packard.

Aug 2021–Dec 2021

Wipro Limited, *Bengaluru*, Karnataka
Senior Project Engineer
- Learned the fundamentals of the automotive domain, CAN and LIN protocols, and Aspice standards.
- Involved in CAN and LIN protocols' firmware development in automotive domain for a European client Magneti Marelli.

June 2020–July 2021

eInfochips - An Arrow Company, *Ahmedabad*, Gujarat
Senior Engineer
- Involved in firmware development of Remtron-S. It also includes R&D on BLE5 for the range of the connected devices on the different PHY.
- Also involved in industry refresh 2.0 project to develop remote operated smart cranes for Cattron.
- Supported hardware team for board bring up targeting STM32 Micro-controller.

July 2016–June 2020

System Level Solutions, *Anand*, Gujarat
Engineer
- Pioneer task is to do development in **C language** as per the GBCS specifications given for electric meter and gas meter for (EDMI), as well as debugging and bug fixing to enhance performance and stability to client.
- Actively participated to create a library in C# for the GBCS validation tool which is proprietary product of SLS.
- Perpetually working as an on-site active support engineer for UK Clients (EDMI, Telefonica).
- Involved in COSMOS project to maintain Dell rack based servers.
- Experience in working with **FreeRTOS** and various controllers(NXP, LPC, ARM Cortex-M4).

SKILLS

Programming Languages	C, Embedded C, C++, C#, LaTeX
Comm. Protocols	I2C, SPI, UART, TCP/UDP, BLE5, IPMI, Zigbee, DLMS, ASN.1, CAN, LIN
Development Environment	Simplicity Studio, LPCXpresso, MCUXpresso, Visual Studio, Eclipse, LabVIEW, TestStand, Keil, MatLab
Project Management Tools	JIRA, JAMA, Jenkins, Tuleap, SVN, GitHub, Agile, Scrum, MISRA Coding Standard, Git bash, Gerrit
Micro controller	NXP LPC43xx, LPC18xx, Arm Cortex-M4, EFM32, EFR32, STM32
Debugging Tools	Saleae Logic Analyzer, Ubiqua Network Utility tool, JTAG
Embedded OS	RTOS, Linux, Micrium OS
Miscellaneous	Debugging, Test Firmware, Board Bring-up, Problem solving, Bug fixing

PROJECTS

Aug 2021–Dec 2021
Magnetic Merelli(Firmware Development - C), *Wipro Limited, Bengaluru*
Learned the fundamentals of the automotive domain, CAN and LIN protocols, and Aspice standards. Involved in development of unit testcases for the firmware using the VectorCAST tool .

June 2020–July 2021
Remtron-S(Firmware Development - C), *eInfochips, Gujarat*
The goal of Remtron is to design machine control using wireless connectivity on equipment such as EOT Cranes, Tower Cranes, Ship Loaders, Mobile Hydraulic vehicles, and Forestry winches. I am responsible for designing both the main firmware as well as production firmware targeting the Si-Lab controller for Cattron (US based firm). I am also involved in client communication for design and development. The project also includes Micrium OS and communication protocols like I2C, SPI, and UART.

June 2020–July 2021
Industry Refresh 2.0(Firmware Development - C), *eInfochips, Gujarat*
The aim is to build remotely operated Smart Cranes. I am responsible for designing the production firmware and addressing the bugs targeting the Si-Lab controller for Cattron (US based firm). I am also involved in client communication for design and development. The project also includes Micrium OS and communication protocols like I2C, SPI, and UART.

Aug 2019–June 2020
COSMOS(Firmware Development - C), *SLS, Gujarat*
Involved in development and client communication for lower level controllers for Dell rack based servers. This project is all about controlling, data collection from sensors and cooling of rack based servers which includes LPC micro-controller, RTOS, SC-BMC (over I2C) communication using IPMI protocol and many other peripherals.

July 2016–July 2019
SMETS - II/III(Firmware Development - C), *SLS, Gujarat*
I have experience to deal with various protocols like **ZigBee Smart Energy Profile**, **DLMS** (Device Language Message Specification protocol), **ASN.1** (Abstract Syntax Notation One) protocol and **MISRA** (Motor Industry Software Reliability Association) for firmware development projects in C programming language.
I have handled different project managing tools like SVN, JIRA, JAMA, Tuleap and Jenkins to run regressions during this time.

June 2017–Dec 2017
GBCS Validation Tool, *SLS, Gujarat*, Team of Three
In this project, I developed library in **C#** for the GBCS Tool which is solely a proprietary product of SLS. I played vital role by developing full back-end of the application called GBCS Validation Tool, this application is automated way to test and validate all the digital meters. This application is appreciated by UK clients of our company. This tool has replaced LABVIEW and TestStand in Telefonica

Feb 2016–Apr 2016
LAN Acquisition System, *Vector India*, Individual
In this project I established communication between I2C devices (RTC), displayed voltage of the channels on LCD using SPI protocol, ADC device. Simultaneously Displayed same output on UART and Linux (ubuntu), and transferred that data from one PC to another in Linux using socket programming.

TRAINING

October 2015–April 2016
Vector India Pvt. Ltd, *Bangalore*
Gained competency in programming languages like C, C++, also got knowledge of embedded programming and socket programming at hardware level.
Also got noesis in system level by learning Linux environment. Implemented IPC and multi threaded programming models in my erudition. Ranked in top 5% among all students in that year.

EDUCATION

2010–2014
B.E Electronics & Communication Engineering, *Gujarat Technological University, Gujarat*
CGPI - 7.6