Hariharan Veerappan

System Software Developer

Total students	Reviews
1,135	**128**

About me

Having 14+ years of experience in complete end-to-end embedded software design & development includes,

• Embedded Linux Software System Design & Development

• Development of Embedded Linux / Android Device Drivers

• Protocol Stack & Telecommunication Standards Implementation

• Embedded Firmware Design, Development and testing

• Device driver development for Windows XP, WinCE, Windows 7 platform

• BSP, Device Driver, Application development based on VxWorks platform

• Professional Trainer of Embedded Linux, Device Drivers, Firmware Programming.

Embedded Systems

Networks Processors : Broadcom Apollo, Trident 2, MPC8360E, MPC8568E, AR7100.

Multi Media Processors : Nvidia TK1, NXP i.MX series, S3C2440A, PNX8532, ST5189.

Intel Processors : Baytrail, Sky Lake, Apollo Lake, Haswell, Celeron

Programming Language : C, C++, and ARM Assembly.

Micro Controller : Kinetis, STM32, nRF52xxx, TI Tiva Series, ATMEL AVR, LPC2136.

ARM Bus Interfaces : AMBA, AXI, AHB, AHB Lite, APB,

Operating Systems : Embedded Linux, Windows, QNX, VxWorks

RTOS : ThreadX, FreeRTOS, mBED, uCLinux, mynewt.

Micro Code : Trident, Wintegra, Freescale Quicc Engine.

BSP Porting & Development

High Speed Inteconnect : PCI, PCIe 3.0, USB 3.0, SDIO.

Memory Interfaces : DDR3, DDR2, Mobile DDR, PSRAM

Audio / Voice Interfaces : I2S, AC97, TDM.

Low speed interconnect : SPI, USART, I2C.

Ethernet PHY interface : MII, RMII, RGMII, XAUI.

Display Interface : HDMI, DVI, LVDS, Parallel LCD.

Camera Interface : MIPI-CSI2, Parallel CSI, USB.

Bootloader : U-Boot, Grub, Red-Boot

Android   : 7.0 & below

Open Source

Linux Kernel   : Linux 4.x, 3.x 2.6.x, 2.4.

Linux Device Drivers   : Character, PCI, Ethernet, Network, Display, Video
V4L2 device drivers.

Boot Loaders   : U-Boot (I.MX, MPC8360, S3C2440), Red Boot (
I.MX31, I.MX27)

Open Source Framework   : Android, Machina IoT, Asterisk, Freeswitch, OPIE
Framework, Linux Streams.

Software Version Control   : Git, SVN, CVS, IBM Clear Case.

Telecom Domain

Line Interfaces   : FXS, FXO, T1 / E1, OC3 / STM-1.

Telecom Signaling standards   : ISDN-PRI, FXS and FXO.

SS7 Line Interfaces   : Low Speed Line (MTP2), High Speed Line (ATM).

SS7 Signaling Standards   : MTP, ISUP, SCCP, TCAP, SAAL, SSCOP, SSCF.

SS7 IP Signaling standard   : SCTP, M2UA, M3UA, BSSMAP, DTAP.

L3 Protocols Known   : TCP/IP, SIP, RTP, RTCP, MGCP, VLAN.

GSM Network Interface   : GSM A Interface (BSC – MSC).

Video Telephony   : H-324M, MPEG4 H.264, H.263

Software Stack Development

USB Device   : USB 3 Vision, USB Video Class, USB HID.

PCIe Device   : PCIe Data Acquisition Device, Ethernet, Video
Capture, Vision

Telecomm   : PTPv2 (IEEE1588), SyncE, MTP2 Stack with Freescale
QE, Y.1731

Networking   : VLAN, MPLS, UDP, MEF8, OSPF.

Bluetooth   : HCI-H5 (Three-Wire UART), BLE.

Radio Interface   : Digital Mobile Radio, ZigBee, 6LowPAN.

Internet of Things   : Smart Lighting, Smart Home

Application Development

Linux GUI Frameworks   : Qt, GTK, GTKMM, JAVA

Windows GUI Frameworks: VC++, C#, VB.Net