

SHEKHAR SUMAN SINGH

Engineering Professional with 5+ years of experience in embedded software development. Working experience in embedded C, device driver development in various embedded systems.

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EXPERIENCE

Cisco Systems, Bangalore— Software Engineer (August 2021 - Present)

(Project: Still Learning)

Atos Information Technology company, Bangalore— Firmware Engineer (February 2021 - August 2021)

(Project: M5UNB)

The project involves development of standalone application and board bring-up for NIOS2 based custom board. This board has a softcore NIOS2 processor with flash controller, UART, I2C and APB bridge IPs.

(Project: Role)

- ★ Board bring-up.
- ★ Standalone application development.

Mistral Solutions Pvt. Ltd, Bangalore— Senior Engineer (Software Design) (July 2019 - February 2021)

(Project: STREAM)

The project involves development of standalone application and PCIe driver for zynqMPSoC based custom board. This board has 4 zynqMPSoCs and a Vertex-7 FPGA with MSP430 microcontroller for power sequencing and monitoring.

(Project: Role)

- ★ PCIe end-point driver development.
- ★ Xilinx standalone application development.
- ★ Design and development of MSP430 application for power sequencing and monitoring.

(Project: VPX135)

The project involves development of U-boot to support Power-on-Built-In-Test and VxWorks BSP for T1042 based custom board. This board has a freescale T1042 quad core processor with major interfaces as Ethernet, FPGA, PCIe, NAND FLASH and EEPROM.

(Project: Role)

- ★ U-Boot(Bootloader) development and board bring-up.
- ★ Power-on-Built -In-Test (PBIT) development in U-Boot.
- ★ Design and development of I2C, ethernet, NVRAM, RTC, temperature diagnostic test in U-Boot.
- ★ Continuous-Built-In-Test (CBIT) development in VxWorks 7.

SKILLS

- ★ Embedded C
- ★ Linux shell script
- ★ Device Driver
- ★ MISRA-C
- ★ C++ (Basic level)
- ★ Python (Beginner level)
- ★ GIT
- ★ SVN
- ★ LabView

AWARDS/CERTIFICATION

- ★ Embedded C Training from CETPA Infotech Pvt. Ltd

LANGUAGES

- ★ English
- ★ Hindi

- ★ Managed software version and releases through GIT.

Mistral Solutions Pvt. Ltd, Bangalore—*Engineer (Software Design)* (February 2017 - July 2019)

(Project: Alpine)

The project is to develop U-boot and RTEMS BSP for a custom board consisting of space grade SOC based on ARM926ej-s core which has interfaces such as MIL1553, CAN, SpaceWire, NOR FLASH and SPI.

(Project: Role)

- ★ U-Boot(Bootloader) development.
- ★ RTEMS(RTOS) BSP and application development.
- ★ Developed MIL1553B, CAN, DMA and NOR-Flash RTEMS drivers following MISRA-C guidelines.
- ★ Developed RTEMS ATP application.

(Project: LIU_TYPE_II)

The project involves development of embedded linux application and device driver for zynq7000 based custom board. This board has a zynq7000 processor interfacing FPGA, MIL1553 and NAND FLASH.

(Project: Role)

- ★ Board bring-up using PetaLinux.
- ★ Developed PetaLinux device driver for MIL1553B, FPGA.
- ★ Developed PetaLinux application for testing drivers and interfaces.
- ★ Developed GUI Qt application (RedHat OS) to interact with the board through ethernet.

EDUCATION

C-DAC, Bangalore (Knowledge Park) — *PG Diploma In Embedded Systems and Design*

(August 2016 - January 2017)

- ★ 74.29 Percentage
- ★ Project - Smart Switch with mobile APP (Bluetooth based)

Ideal Institute Of Technology, Ghaziabad — *Bachelor of Technology (B.Tech.), Electronics and Communication Engineering*

(2012 - 2016)

- ★ 70.04 Percentage
- ★ Major Project - Accident Notification System
- ★ Minor Project - Musical Fingers

Kendriya Vidyalaya, Mughalsarai — *Junior High/Middle School Education/Intermediate*

(2000 - 2012)

- ★ 12th - 72.5%
- ★ 10th - 8(CGPA)

