Ashutosh Mishra

(*Embedded Software Engineer*)

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**+91 9765608793**.

# Summary

Embedded System professional with 5 years of experience in Medical Device Software Domain Successfully designed and developed Firmware based applications and presently working in the automotive tools development and infrastructure teams

# Experience

## Tata Elxsi Ltd.

Embedded Software Engineer (*Sep 2019-July 2022*)

**Roles & Responsibilities**

* Analyzing requirements for device software.
* Designing different software modules.
* Working on the MATLAB (GUI creation)
* Driver development and communication between the stm32 board.
* Development and delivery of various software modules
* Worked on Lab view/lab window CVI

## Knorr bremse Ltd.

## Embedded Software Engineer

## (July 2022 - Present)

Embedded Software Engineer

* Writing the C source code in the IDE keil, stm32cube IDE
* Writing the driver code for UART, SPI communication bus
* Integration of trace32 tool in various project
* Features development of trace32 tool using CMM script
* Writing the python code for cyber security features (flashing the encrypted software file into the controller algorithm AES GCM, AES CBC)
* Writing the CMM script to provide the new feature for debugging.
* New features development in trace32 debugging tool.
* Working on the CAN protocol for communication between ECU.

# Skill Summary

* Embedded C
* Peripheral Driver Development (UART, I2C, SPI, CAN)
* Perl/shell script
* Embedded Linux
* MATLAB(GUI)
* Practice script (.CMM)
* Lab window CVI/Lab view
* Python script
* RTOS (Free RTOS)
* Perl scripting
* EAGLE (schematic design)
* HIL and unit testing
* Writing the test specimen for tool
* CANoe tool.

# Projects

## Electro Surgical Generator (Laparoscopic surgery)

Duration: 1 year 6 months

* + Design and developed MATLAB GUI.
  + Sending the parameter Vpeak, Ipeak and Power parameter from MATLAB to STM32 board.
  + Interfacing between the MATLAB and STM32 board using the UART communication protocol.
  + Derived parameter from STM32 board Vrms, Irms, vdc, Apparent power(P), Power factor (PF), Impedance(z) and sends to MATLAB application GUI.
  + Peripheral driver development like UART, SPI.

## DevEnv Automotive tools and infrastructure

* + Scripting of UCB flashing in various Project
  + Script to Flash the UCB using CMM scripting.
  + Script to disable the watchdog of Infineon Controller(tc3xx,tc2xx)
  + Triggering the Trace32 tool using the Python library
  + Written python script to encrypt the software file (.s19,hex file)
  + Shell scripting for make tool.

# Education

* Completed SSC from Maharashtra State Board in 2012.
* Completed PG-Diploma in Embedded System Design from CDAC Acts, Pune in 2019
* Completed BE in Electronics & Telecommunication with from Mumbai University in 2018
* Completed Diploma in Electronics & Telecommunication from Maharashtra State Board Technical Education in 2015

# Personal Information

Name: Ashutosh Mishra

Address: Room No.14, Aakruti building Achole cross, road Nallasopara (East) Palghar-401209 Languages Known: English, Hindi

DECLARATION: “*I hereby declare that the information given above is true to the best of my knowledge”*