Ankita Sharma

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Embedded Software Engineer with 2 years of experience in automotive embedded software development subjected to Agile Methodology. Currently part of a software development team for a TATA Motor project, working on ARM-M7 and A53 core. Hands on experience in HW level, customer requirement analysis, software development, documentation, debugging and testing.

Work Experience

SEPTEMBER, 2020 – PRESENT

Embedded SE / ACCOLADE, PUNE

- **Infotainment System- TATA Motors**
  - Creating an environment for implementing use cases in Android Studio.
  - Responsible for implementing **driver** for CAN, SPI protocol and RPMSG.
  - Implement Business Logic and a Flow diagram for customer requirement.
  - Responsible for Linux Kernel programming, Multi-thread programming, RPMsg protocol.
  - Responsible for developing **Android** based application by using JNI.

JANUARY, 2020 – AUGUST, 2020

Software Engineer / VISTEON, PUNE

- Validation of the **ADAS** features- Evasive Steering Assist (ESA), Front Cross Traffic Alert (FCTA) and Rear Cross Traffic Alert (RCTA).
- Responsible for creating unit test plan and executing unit test using Vector Cast tool
- Responsible to achieve the statement coverage, branch coverage and Pair coverage of SW units as per the Coverage guidelines using **VectorCAST** Tool.
- Done Internal Training for **ISO 26262** Part 4 -system Validation.
- Creating the scenario and implementation of test cases in Carmaker.
- Responsible for performing **Static Code Analysis** with **Coverity/MISRA-C** standards.

Education

PG Diploma - DESD / CDAC-ACTS, PUNE — AUGUST 2019

Completed PG Diploma in Embedded Systems Design with **Grade A**.

Masters of Technology - ECE / JAPYPEE, GUNA — JULY 2018

Completed masters of Technology in Electronics and Communication Engineering with CGPA 9.0

Bachelor of Engineering- ECE / BANSAL, BHOPAL — JULY, 2016

Completed bachelor of engineering in Electronics and Communication Engineering with CGPA 7.12

Skills

- **Microcontrollers** – AVR, ARM (TDMI, Cortex M3/M4/M7)
- **Framework** – AUTOSAR 4/BSW
- **RTOS/EOS** – FreeRTOS, Embedded Linux
- **Comm. Protocol** – UART, SPI, I2C, CAN
- **Linux Internals** – IPC, Threads
- **Image Processing Algorithms** – Encoding/decoding, Compression, Feature detection and matching, Image segmentation and transformation
- **Requirements Management** – DOORS Next Generation
- **Source control** – RTC, Git , SVN, JIRA
- **Unit testing** – Vector Cast
- **Programming Languages** – C, C++
- **Scripting Languages** – Batch, Python, , MATLAB scripting
- **Tools** – Carmaker, CANoe, MATLAB/Simulink

Projects

Blind Spot Detection

- The project aims at Blind Spot Detection and warning in vehicles. It uses two STM32F407 boards as two nodes to communicate with each other using CAN Transceiver. The output is displayed on OLED Display.

Image Compression by Using Fractional Fourier Transform

- In this project FRFT and Run Length coding is used for image compression using MATLAB. The purpose of image compression is to achieve a very low bit rate representation, while preserving a high visual quality of decompressed images.

Android Based Automated wheel Chair for disabled people

- The project aimed to help the people who are dependent on wheelchair for their mobility. It used AVR microcontroller and DC motor to create the movement of wheelchair. The module was controlled using an Android based application via voice commands.

Activities & Awards

- Got 1st prize in state level model competition (model- Android based automated wheelchair for disabled people) and Got 3rd prize in National level model competition for the same model

Personal Information

- **Date of Birth** – 17th December, 1995
- **Hobbies** – Cooking, dancing