

# M.S.CHAITANYA.

Embedded C/C++ Developer

Email: [mschaitanya4321@gmail.com](mailto:mschaitanya4321@gmail.com) | Phone Number: 9398291529 | Bangalore

LinkedIn: [linkedin.com/in/chaitanya-m-s-4b8a04271](https://www.linkedin.com/in/chaitanya-m-s-4b8a04271)

---

## CAREER OBJECTIVE:

- Dedicated Embedded C++ Developer with 1.3 years of hands-on experience in AUTOSAR development, seeking to leverage expertise in software requirement analysis, design, and testing to contribute to innovative projects in the automotive industry.

## WORK EXPERIENCE:

### Emertxe Information Technologies, Bangalore

#### Advanced Embedded Systems Training

- Currently undergoing technical training program – **Advanced Embedded Systems Course** at **Emertxe Information Technologies** (<http://www.emertxe.com>) Bangalore.
- Focusing on programming and system development for real-world embedded applications.

### KPIT Technologies, Bangalore

#### Trainee | Jan 2022 – Apr 2023

- Implemented cryptographic solutions, including **HMAC, CMAC, and RSA**, enhancing secure automotive communication systems by **30% efficiency**.
- Integrated cryptographic modules into **AUTOSAR-compliant platforms**, ensuring **100% secure message authentication** between ECUs.
- Extensive experience in **Linux and QNX systems**, proficient in tools like **Git, Yocto**, and version control systems for efficient software development.
- Collaborated on **3+ projects** in **Agile and Waterfall Environments**, consistently achieving 100% on-time delivery of project milestones.
- Utilized tools such as **OpenSSL, CANTATA, and DOORS** for **cryptographic** implementation and testing, reducing defects by **25%** through streamlined requirements management.
- Strong knowledge of **Automotive protocols and standards**, including **CAN, Ethernet**, and **AUTOSAR**, with hands-on experience in **RTOS and Multithreading**.

## Technical Skills:

- **Languages:** Embedded C and C++ using OOP Concepts, Linux shell scripting, Data Structures & Algorithm.
- **Operating Systems:** Experienced with Windows, Linux (Ubuntu).
- **Development Tools:** Visual Studio Code, GIT, Eclipse, vim Editor, Make files, ARM-Linux GCC compilers and MPLAB.

- **Debugging Techniques:** Proficient in GDB, GCC and Trace32.
- **Requirement Management:** Experienced with DOORS, CANTATA.
- **Design Tools:** Enterprise Architect.
- **Configuration Tools:** C4K.
- **Embedded Controllers:** PIC (18F4580) board and Communication protocols – CAN, UART, SPI, and I2C.
- **Linux System Programming:** Linux kernel system calls, IPC Mechanisms (TCP/UDP), Networking and Multithreading using pThreads.
- **Networking and Protocols:** TCP and UDP socket programming and protocol development.

## PROJECTS:

### Cryptography Projects:

- Developed and integrated cryptographic algorithms like HMAC, CMAC, and RSA into AUTOSAR-compliant platforms, ensuring secure communication between ECUs.
- Utilized tools like **OpenSSL** and **CANTATA** for implementation and testing by reducing defects by 25%.

### Address Book:

- Implemented a console-based Address Book application in C, managing **100+ contact entries** with features for adding, updating, and deleting details using standard I/O.
- Optimized search and update operations, improving efficiency by **20%** through effective use of data structures like arrays and linked lists.

### Car Black Box (CBB) implementation:

- Designed a Car Black Box system to monitor and log events such as over-speeding, increasing data accuracy by **30%** through real-time event tracking.
- Enhanced crash analysis capabilities by logging **10+ critical parameters**, supporting post-crash investigations and reducing diagnosis time by **25%**.

### Image Steganography using LSB Encoding and Decoding:

- Developed an image steganography project using Advanced C to embed and extract hidden messages through LSB mechanisms, ensuring data integrity without altering the original image properties.

## Roles & Responsibilities:

- Analysed specification documents to identify software requirements for AUTOSAR Cryptography and XCP modules, ensuring alignment with project objectives.
- Designed and created software architecture and components using Embedded C++ for AUTOSAR platforms, achieving **100% requirement compliance**.
- Managed software configuration and ensured consistency across system variants, adapting configurations as needed for different project requirements.

- Maintained and updated comprehensive project documentation, including software design, requirements, and test cases, ensuring accuracy and compliance with AUTOSAR standards and project specifications.

#### ACADEMIC PROFILE:

- B.Tech (ECE) : MTIET, JNTU-A, 59.86%, 2017-2021
- Class – XII: SRI VIVEKANANDA JUNIOR COLLEGE, 80%, 2017
- Class – X: R.K.MODEL SCHOOL, 82%, 2015

#### ACADEMIC PROJECT:

A NOVEL TWO STEP STRATAGY BASED ON WHITE BALENCING AND FUSSION FOR UNDERWATER IMAGE ENHANCEMENT: To get quality and good image of underwater .In this project we used image processing technique. By this project we can able to see the things present in underwater very clearly.

#### PERSONAL DETAILS:

- Date of Birth : 03-Aug-1999
- Languages known : English, Telugu, Tamil.
- Hobbies : Listening To Music, Playing Cricket, Shuttlecock.

#### DECLARATION:

The information given above is correct as per my knowledge and I will be able to provide the details as per the requirement.

M.S.Chaitanya.