

## SUMMARY

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Highly skilled Embedded Software Engineer with over 1.5 years of experience in designing, developing, and optimizing embedded systems for automotive, industrial, and consumer applications.

## EDUCATION

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- **Mahatma Jyotiba Phule Rohilkhand University** Bareilly  
*B.Tech: Computer Science and Information Technology; GPA: 7.3/10* 2019 - 2022
- **Government Polytechnic Kanpur** Kanpur  
*Diploma: Information Technology; GPA: 7.3/10* 2016 - 2019

## TECHNICAL SKILLS

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- Programming in C, C++, Embedded C, Data Structure, Linux, Operating System
- Microprocessor, Microcontroller (PIC16F877A), I2C, SPI, UART, CAN

## EXPERIENCE

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- **APTIV** Bangalore  
*Software Engineer - Full time* Jan 2023 - Dec 2023
  - As a Software Engineer, I focused on adding cybersecurity measures like Secure Boot, Secure Logging, Secure Key Storage, Secure Feature Activation (SFA), Hardware Security Modules (HSM), and CAN Message Authentication (CMA).
  - Debugging, Root Cause Analysis and handling customer issues
  - Tools: Lauterbach (debugger), Trace32 (debugging), CANoe, Polarian (requirement gathering), Ford Diagnostics Engineering tools, Plastic SCM, Jira (Process Tracking tools), Vcast .
- **Emertxe Information Technology, Bangalore** [www.emertxe.com](http://www.emertxe.com) Remote  
*Embedded Software Developer - Trainee* July 2024 - Present
  - C, C++, Embedded C, Data Structure, Linux, Microcontroller

## PROJECTS

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- **Address Book** [\[LINK\]](#) This project is a basic Address Book Management System developed in C that allows users to store, retrieve, and manage contact information efficiently.  
**Uses:** C, pointer, structure, FILE I/O
- **LSB Image Steganography** [\[LINK\]](#)  
A practice of concealing a file, message, image, or video within another file, message, image, or video  
**Uses:** C, pointer, structure, File I/O, Bit manipulation, Cryptography
- **Inverted Search** [\[LINK\]](#) The Inverted Search Project is a C-based implementation designed to index and search words across multiple files efficiently. It organizes data in a way that facilitates quick lookups, similar to how a search engine indexes content.  
**Uses:** C, Structure, Pointers, linked list, Hashing, File I/O
- **Car Black Box**  
Black Box that records essential vehicle activities. The proposed solution involves logging key events such as gear shifts along with the current speed, and time.  
**Uses:** Embedded C, Microcontroller (PIC16F877A), UART

## OTHER INFORMATION

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- **Embedded SW Skills:** Embedded C, Autosar, ADAS, Linux, Lauterbach, Trace32, J-tag, CANoe, CAN, CAN FD, I2C, Vcast, UART, Secure Boot, ISO 21434, ISO26262
- **Documentation and Project management:** Agile Scrum, ASPICE, Git, Plastic, Code Review, Coding Standards, Coverity, Polarian, Jira, Confluence, Enterprise Architect