

SRIPATHI G

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CAREER OBJECTIVE

To obtain a position as an embedded software engineer where I can use my programming skills and passion for technology to develop efficient software solutions and grow as a professional in a collaborative team.

WORK EXPERIENCE

- Currently undergoing technical training program – **Advanced Embedded Systems Course** at Emertxe Information Technologies (<http://www.emertxe.com>) Bangalore.
- **Team Leader**, Smart Technologies (Authorized Samsung Service center), Salem. Nov 2018- Oct 2020.
- Led a Team in providing technical support and service for Samsung products at customer's locations.
- Every day, we received complaints from Samsung customers through the Samsung portal. I assigned technical staff to resolve those issues at the customers' locations. Afterward, I gathered feedback from the customers before closing the complaints in the Samsung portal.

TECHNICAL SKILLS

- Programming Languages:
 - Shell scripting
 - Advanced C programming
 - Data structures and Algorithms
- Embedded controllers:
 - Hands-on working with GPIOs, Analog I/Os, Memory usage, interfacing, character LCD
 - Peripherals usage - Timers, Counters and Interrupts
 - Communication protocols - UART, SPI, I2C, CAN.
- Embedded platforms:
 - Distributions - Linux (Ubuntu)
 - PIC (18F4580) board
- Development environment and tools:
 - Dev environment: Vim, Makefiles, MPLAB
 - Compilers: GCC, XC8
- System programming:
 - Linux Kernel system calls
 - IPC mechanisms – Pipe, Shared Memory
 - Network Programming using TCP and UDP sockets
 - pThreads - Multi thread programming

COURSE WORK

- Microprocessor and Micro Controller
- Digital Electronics

EDUCATION

- ME (VLSI), AU, 7.93CGPA, 2016-2018
 - B.E (ECE), AU, 6.85CGPA, 2011-2015
 - Class – XII, STATE BOARD, 70.91%, 2011
 - Class – X, STATE BOARD, 79.8%, 2009
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PROJECTS

Project Number:1

Title	Image Steganography using LSB Encoding and Decoding
Project brief	The objective was to send a secret text file encoded inside an image of bmp file format. Encoded the length of the secret text and then encoded the data into the LSB of the image bytes. The decoding process involves decoding the length and then decoding the text bit by bit. The final output is the secret text after decoding.
Technologies used	Embedded C – File operations, Pointers, Bitwise operations, Functions, Command line arguments
Key challenges & Learnings	<ul style="list-style-type: none">✓ Analyzed image file structures, including how pixels and headers are organized.✓ Embedding secret text into images without altering their visual quality.✓ Handling issues with bitwise operations for both adding and extracting data.✓ Ensuring the accuracy of the encoding and decoding process to retrieve the secret text correctly.

Project number:2

Title	Car Black Box Implementation
Project brief	Black Boxes are typically used in any transportation system (ex: Airplanes) that are used for analysis post-crash and understand the root cause of accidents. Continuous monitoring and logging of events (ex: over-speeding) is critical for effective usage of black box. The goal of this project is to implement core functionalities of a care black-box in a PIC based micro-controller supported by rich peripherals. Events will be logged in EEPROM in this project. This project can be further extended to any vehicle.
Technologies used	PIC micro-controller & schematics, Peripheral (ex: Potentiometer) handling by understanding data-sheets, Interrupt handling.
Key challenges & Learnings	<ul style="list-style-type: none">✓ Understood the UART protocol and its data transmission process.✓ Faced challenges in configuring all the required peripherals while implementing the project.✓ Faced challenges while storing and retrieving data into EEPROM.