

CONTACT

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CAREER OBJECTIVE

Passionate and skilled engineer looking for an opportunity to work as an Embedded engineer where my professional skills can be utilized towards personal as well as organizational growth.

TRAINING DETAILS

Currently undergoing hands-on technical training program - **Emertxe Certified Embedded Professional (ECEP)** at Emertxe Information Technologies (<http://www.emertxe.com>), Bangalore.

TECHNICAL SKILLS

Programming Languages:

- ✓ Advanced C
- ✓ OOPS of C++
- ✓ Python
- ✓ Java
- ✓ Shell scripting
- ✓ Data structures & Algorithms
- ✓ Linux internals

Embedded controllers:

- ✓ Hands-on working with GPIOs, interfacing, character LCD, Analog I/O
- ✓ Peripherals usage - Timers, Counters and Interrupts.
- ✓ Communication Protocols: UART, SPI, I2C, CAN.

Development environment and tools:

- ✓ Dev environment: Vim, Makefiles
- ✓ Compilers : GCC, XC8.

Embedded Platforms:

- ✓ PIC16F87AA

PERSONAL ATTRIBUTES

- ✓ Quick learning of new initiatives.
- ✓ Able to meet deadlines through effective time management.
- ✓ Able to work effectively under pressure.
- ✓ Work ethic, committed to working hard and sincere.

EDUCATION

- ✓ Btech (Electronics & Communication) from Rajiv Gandhi University of knowledge and Technologies (IIIT SRIKAKULAM), in 2023 with CGPA 8.5
- ✓ PUC from Rajiv Gandhi University of knowledge and Technologies (IIIT SRIKAKULAM), in 2019 with CGPA 8.6.
- ✓ SSC from Regidi Amadalavalasa, Andhra pradesh, in 2017 with CGPA 9.7.

PROJECT DETAILS

Title IMAGE SETGANOGRAPHY

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.
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Technologies used	C language - Function pointers, File I/O handling, File pointers, string operations, Bitwise operations.
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Key challenges & Learning's	<ul style="list-style-type: none">✓ The use of file pointers and File operators.✓ Byte-wise and bitwise manipulation of data by declaring a local buffer to encrypt and decrypt data.
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Title INVERTED SEARCH

Project brief	An inverted index is an index data structure storing a mapping from content, such as words or numbers, to its locations in a database file, or in a document or a set of documents. The purpose of an inverted index is to allow fast full text searches, at a cost of increased processing when a document is added to the database. The inverted file may be the database file itself, rather than its index. It is the most popular data structure used in document retrieval systems, used on a large scale for example in search engines. The purpose of this project is to implement the inverted search using Hash Algorithms.
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Technologies used	C language - File I/O handling. Data Structure - Linked List, Hashing.
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Key challenges & learning's	<ul style="list-style-type: none">✓ The use of file pointers and File operations✓ Create and update the database.✓ Create a backup of database
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Title MP3 TAG READER AND EDITOR

Project brief	MP3 tag reader is a software which will read and display MP3(ID3) tag information from MP3 files. The software will be desktop based not web based. The is extended to implement a tag editor, where we can edit MP3 tags.
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Technologies used	C language - Function pointers, File I/O handling, string operations.
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Key challenges & learning's	<ul style="list-style-type: none">✓ Usage of file pointers and File operators✓ Modification of tag in the same file.
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Title

CAR BLACK BOX

Project brief	Black Boxes are typically used in any transportation system (ex: Airplanes) that are used for analysis post-crash and understanding the root cause of accidents. Continuous monitoring and logging of events (ex: over-speeding) is critical for the effective usage of the black box. The goal of this project is to implement core functionalities of a care black box in a PIC-based microcontroller supported by rich peripherals. Events will be logged in EEPROM in this project. This project can be further extended to any vehicle.
Technologies used	Embedded C, PIC Microcontroller, I2C, UART Protocols, interrupt handling, Peripherals.
Key challenges & learning's	<ul style="list-style-type: none">✓ RTC time configuration and updating✓ Timer Configuration✓ External EEPROM Configuration.

Title

MINI SHELL

Project brief	The mini-shell mimics the bash shell by using system calls and IPC mechanisms like signals.it will handle a set of commands as called out belowand also handle special keyboard actions ,can be extended for advanced functionalities. .
Technologies used	Linux Internals

Title

AUTOMATIC FAN SPEED CONTROLLER

Project brief	Here the temperature sensor senses the temperature from the surroundings it gives output signals to the Arduino then Arduino adjusts the fan speed. And the values of temperature and fan speed displayed on lcd. .
Technologies used	Arduino microcontroller.
Key challenges & learning's	<ul style="list-style-type: none">✓ . Configuring sensors

Title

SMART IRRIGATION SYSTEM

Project brief	Collaborated with a team to build smart irrigation system using Arduino UNO(microcontroller),Moisture sensor. Based on the Moisture level the pump motor turn on or off.
Technologies used	Arduino IDE, Embedded C, Sensors.
Key challenges & learning's	<ul style="list-style-type: none">✓ Sensor configurations and values✓ Collecting the previous data sets