K BRIJESH

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| **career objective** |  | To obtain a position in a company that will enable me to utilize my skills as an Embedded engineer and work in a competitive environment to gain expertise, pursue adaptability and obtain industrial experience to achieve my career goals. |
| **github url** |  | [**https://github.com/BrijeshKotari**](https://github.com/BrijeshKotari) |
| **WORK EXPERIENCE** |  | Currently undergoing hands-on technical training program – **Emertxe Certified Embedded Professional (ECEP)** at Emertxe Information Technologies ([http://www.emertxe.com](http://www.emertxe.com/)), Bangalore |
| **technical skills** |  | * Programming Languages:   + Shell scripting   + Advanced C * Data structures * Linked Lists * Queues and Stack * Trees * Development environment and tools:   + Dev environment: Vim, Makefiles.   + Compilers: GCC.   + Debuggers: GDB, Codeblocks .   + Version Control : GIT. |
| **PERSONAL ATTRIBUTES** |  | * Quick learning of new initiatives * Ability to meet deadlines through effective time management * Ability to work effectively under pressure * Team player with work ethics, committed to work hard and sincere |
| **Education** |  | BE(ECE), SIT Tumkur, 2018 with CGPA 7.96PUC from Alva’s PU College,Moodabidri,2014 with 84.33%SSLC from Little Flower Eng Med H S,Siddapura, 2012 with 83.20% |

# **Projects at emertxe**

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| 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, Makefiles, Command line arguments |
| Key challenges & Learnings | * Understanding of pixels and header of image file by doing literature study * Transforming the embedded information to the destination without changing properties of original image * Faced challenges while doing bitwise manipulation of data to embed as well to retrieve the data from the destination image which was solved by self-understanding |

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| Project Number:2 |  |
| Title | **Mp3 tag viewer and editor** |
| Project brief | The objective was to read the properties of audio files of different versions. Read the tag and size of tag content Accordingly read and edit different frame headers and according to size of frame content read and display the properties of audio file such as Album, Artist, Track name Title and Year. |
| Technologies used | Embedded C – File operations, Pointers, Bitwise operations, Functions, Makefiles, Command line arguments |
| Key challenges & Learnings | * Understanding tags of different versions and frame headers by doing literature study * Displaying the properties embedded in audio file to the standard output without changing properties of original file. * Faced challenges while doing bitwise manipulation of data to embed as well to retrieve the data from the source audio file which was solved by self-understanding. |
| Project Number:3 |  |
| Title | **Arithmetic Precision Calculator(APC) Using Linked lists** |
| Project brief | The objective was to perform arithmetic operations on very large numbers without losing precision using double linked list and produce efficient results. |
| Technologies used | Embedded C – Double linked list, Pointers, Functions, Makefiles, Command line arguments |
| Key challenges & Learnings | * Fetching 4 digits of data from command line and storing in nodes of linked list. * Performing Addition of operands by adding respective data in nodes starting from tail to head of linked list. * Performing Subtraction of operands by subtracting respective datas in nodes starting from tail to head of linked list. * Performing Multiplication of numbers using successive addition of first number as many time as second number. * Performing division of operands by successive subtraction of   two integer number until result is less than smaller operand. |

# **academic projects**

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| Mini-project |  |
| Title | **Sequential tilt-motion lock** |
| Project brief | The lock is opened with predefined motion sequence which is given as input to lock by using accelerometer module. |
| Technologies used | Accelerometer module, RF transmitter and receiver, Arduino IDE |
| Learnings | * Interfacing Accelerometer. * Interfacing RF module with Arduino. * Understanding UTLP Kit. |
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| Major-project |  |
| Title | **Real time smart voting machine with security** |
| Project brief | The authentication of each voter done by fingerprint verification and vote status will be updated and voter details will be displayed. |
| Technologies used | Xampp server, Finger print module, RF transmitter and receiver, Arduino IDE. |
| Learnings | * Understanding the working of Fingerprint module. * Displaying the details of voter and updating of vote status in database. * Matching of fingerprint using Fingerprint module. |
| Hobby-project |  |
| Title | **Obstacle avoidance robotic vehicle using ultrasonic sensor** |
| Project brief | If any obstacle found in front of vehicle it will look left and right. if obstacle not found in right or left it will move in that direction otherwise it will come back and scan again. |
| Technologies used | Motor driver circuit, Ultrasonic sensor, Arduino IDE, Servomotor. |
| Learnings | * Understanding the working of Ultrasonic sensor. * Understanding the working of Motor driver. |

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