

SOWMYA REDDY BOREM

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🌐 Sowmya Borem

Career Objective

Dedicated Embedded R&D Engineer with 1 year of experience, eager to apply my technical skills in developing innovative embedded systems within a forward-thinking organization.

Education

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| Brilliant Institute of Engineering & Technology, Abdullapurmet | July 2018 – August 2022 |
| Electronics and communication engineering with CGPA: 7.0 | |
| Sri Chaitanya junior college, Hyderabad | June 2016 - April 2018 |
| MPC with score :8.6 | |
| San Juan vidya Niketan high school, Choutuppal | June 2015 – April 2016 |
| SSC with score: 8.2 | |

EXPERIENCE

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| Embedded R & D Engineer | November 2023 – November 2024 |
| Skylark Embedded Systems | |

- Developed and tested embedded systems projects using STM8 and STM32 microcontrollers.
- Implemented communication protocols (SPI, UART, I2C) for data transfer and device control.
- Tested and debugged embedded systems using Keil uVision, IAR Embedded Workbench, and STVP.
- Troubleshooting and solved problems related to hardware and software issues in embedded systems.

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|--------------------------|-------------------------|
| Embedded Intern | May 2023 – October 2023 |
| Skylark Embedded Systems | |

- Gained hands-on experience in embedded systems development, focusing on STM8 microcontroller programming.
- Focusing on C programming language and STM8 microcontroller.

PROJECTS

BANK INTEREST RATE DISPLAY BOARD

- Developed a digital display board to show real-time bank interest rates using an STM8 microcontroller, ensuring accurate and efficient data display.
- Programmed the STM8 microcontroller to control the seven-segment display through shift registers.

GPS DIGITAL CLOCK

- Developed a GPS digital clock using an STM8 microcontroller and a GPS module and to ensure efficient and accurate timekeeping.
- Developed the embedded software for controlling the seven-segment display using STM8 and GPS module.

GPS BASED PUBLIC ADDRESS & PASSENGER INFORMATION SYSTEM & LED DESTINATION BOARDS IN AC AND NON- AC COACHES

- The GPS Based Public Address & Passenger Information System (PAPIS) is an advanced system designed to enhance the travel experience for passengers on trains.
- The PAPIS integrates GPS technology with LED destination boards and public address systems to provide real-time information to passengers. It is implemented in both AC and non-AC coaches to ensure a consistent and reliable services

GPS PLATFORM CLOCK

- A GPS Platform Clock is a high-precision timekeeping device designed to synchronize its time with Global Positioning System (GPS) signals.
- This ensures the clock maintains extremely accurate time, at various locations.

ACADEMIC PROJECTS

Automatic Room Lights Controller Using Arduino & Passive Infrared Sensor.

- Developed an automatic room lighting system using an Arduino and a Passive Infrared (PIR) sensor to enhance energy efficiency and convenience.
- Automatic Room Lights Controller can be installed in which the room lights will turn on automatically upon detection of human motion and will stay tuned until the motion stops.

TECHNICAL SKILLS

Programming Languages: C, Embedded C.

Microcontrollers : STM8, STM32.

Communication Protocols : SPI, UART, I2C, RS232, RS485, RS422.

Development tools : Keil uVision , IAR Embedded Workbench , ST Visual Programmer.

Troubleshoot and solved hardware and software issues in embedded systems.

Understanding schematics

Testing & Debugging

CERTIFICATIONS AND TRAINING

Embedded Systems Training in Purplenow *company Madhapur, Hyderabad.*

November 2022 – April 2023