

# BHUNESH SEN

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Portfolio: [bhuneshsen.github.io/portfolio/](https://bhuneshsen.github.io/portfolio/)

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## OBJECTIVE

Seeking an opportunity in embedded systems development where I can apply my expertise in development to create innovative and efficient solutions while continuously learning and growing.

## TECHNICAL SKILLS

SKILLS	C++, Python, Data Structures and Algorithms, Object-Oriented Programming,
Hardware & Electronics	Embedded Systems, PCB Design
Software Applications	Visual Studio Code, Arduino IDE, KiCAD
IoT Protocols & Communication	UART, SPI, I2C, RS-485, IoT Gateway Integration

## SOFT SKILLS

- Team-Work
- Quick Learner
- Time Management
- Problem Solving

## EDUCATION

INSTITUTION	DEGREE	YEAR
Sagar Institute of Science and Technology, Gandhinagar, Bhopal	B. Tech	(2021-2025)
D. P. Sanskar Public School, Bhopal – M.P.	12th	(2020-2021)
Christ Memorial Sr. Sec School, Bhopal – M.P.	10th	(2018-2019)

## WORK EXPERIENCE

DRMZ-SYSTEM INNOVATIONS PVT. LTD.BHOPAL(MP) - RESEARCH INTERN - (AUG-2024 -FEB-2025)

- Designed, tested, and prototyped multiple embedded systems and PCB layouts, optimizing performance for industrial applications.
- Worked with IoT protocols (I2C, UART, SPI, MQTT) to enable seamless device integration, remote connectivity, and automation.
- Developed and debugged firmware for ATmega microcontrollers, ensuring efficient real-time processing in embedded solutions.
- Collaborated on industrial projects, implementing custom PCB designs and embedded solutions for automation and communication systems.

## PROJECTS

<u>FACE RECOGNITION ATTENDANCE SYSTEM</u>	<ul style="list-style-type: none"><li>• The Face Recognition Attendance system records attendance of students and faculties by facial recognition.</li><li>• It provides a platform to manage records without any hassle.</li></ul>
<u>REAL-TIME CLOCK</u>	<ul style="list-style-type: none"><li>• Developed a real-time clock using DS3231 with buzzer and RF communication (Rx/Tx) capabilities, integrated with Morey_OS.</li><li>• This is integrated with Gateway for the synchronization of different automated devices.</li></ul>
<u>Smart-Home Automation</u>	<ul style="list-style-type: none"><li>• Designed and developed an automation system integrating sensors, RF communication, and embedded firmware to minimize manual operations.</li></ul>

<b>IR-BLASTER</b>	<ul style="list-style-type: none"> <li>Designed and implemented an Infrared blaster to enable remote control functionality for various electronic devices.</li> <li>This acts as a moderator, facilitating communication between different devices and extending their range.</li> </ul>
<b><u>SR74HC595 Library</u></b>	<ul style="list-style-type: none"> <li>Developed a custom library for the 74HC595 shift register tailored for Morey_OS, enabling efficient control of multiple peripherals with minimal GPIO usage.</li> </ul>

## ACIEVEMENTS & EXTRA-CURRICULAR ACTIVITIES

- Attended a 7-day workshop on **Python Programming** at SISTec-GN, Bhopal
- Completed an online certification course on “**Introduction to C++**” by Udemy (2024)
- Attended a 11-day workshop on **Web Development** at SISTec-GN

## CO-CURRICULAR ACTIVITIES

- Participated in State level Project Exhibition “**10<sup>th</sup> Bhopal Vigyan Mela 2023**”
- Secured 1st position in Poster Making Competition “**Abhivyakti 2022**” at SISTec-GN
- Co-ordinated a literary event “**Sagar Sahitya 2021**”

## PERSONAL INTEREST

- Fitness
- Sketching
- Spiritual Readings