

# JAMGALA DIVYA

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## Objective

Seeking an entry level position to begin my career in a high-level professional environment.

## Educational Qualification

Year	Degree/Examination	Institution/Board	CGPA/Percentage
2023	B. Tech ECE	Jntua College of Engineering, Kalikiri	8.4
2019	Class XII	Narayana Junior College, Nellore	96.1
2017	Class X	Himalaya E.M High School	10.00

## Academic Achievements

- Awarded Pragati Scholarship based on Intermediate Merit.
- Secured second rank in essay writing competition in tenth standard.

## Internship Experience

- Embedded Systems:** August 2022-September 2022  
Undergone Virtual Internship training at Adventure Technology Solutions on topic Embedded Systems.

## Other Projects

- Laser Light Security Alarm:** January 2022  
Laser based security system is a type of security and alarm system that uses laser light and a light sensor. A security system protects our home, office, lockers, banks etc from intrusion and unauthorised access.
- UV Ray Intensity Meter:** July 2022  
In this project, UV sensor is used for measuring the intensity of uv rays. This will be helpful for maintenance of various equipment.
- Diabetes Prediction** May 2023  
Built a predictive model using machine learning algorithms to predict the likelihood of a person having diabetes based on various health parameters. Used Python and scikit-learn library for data preprocessing, model training, and evaluation.

## **Skills**

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- Programming Languages – C, Python, Java
- Frontend – Html, Css
- Database – Sql

## **Languages Known**

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- Telugu (Mother Tongue)
- English
- Hindi

## **Strengths**

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- Adaptability
- Fast Learning
- Proactiveness

## **Certifications**

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- Certifications from Hindi Prachar Sabha on Prathamik, Madhyama, Rashtra Basha and Praveshika.
- NEO Certification on “Internet of Things.” (Duration:4 Weeks)
- Microsoft Technology Associate -Programming using Python.

## **Extracurricular Activities**

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- Participated in Throw ball competition in College Fest held at Jntua College of Engineering Kalikri.
- Worked as volunteer in YEF Foundation.
- Participated in preparing decorations in technical fest in college.

# BITWISE OPERATORS

- Bitwise operators are used to performing the manipulation of individual bits of a number. They can be used with any integral type (char, short, int, etc.).

## Types of Bitwise operators:

1. **Bitwise OR:** This operator is a binary operator, denoted by '|'. It returns bit by bit OR of input values, i.e., if either of the bits is 1, it gives 1, else it shows 0.

Example: 12 = 00001100 (In Binary)

25 = 00011001 (In Binary)

Bitwise OR Operation of 12 and 25

00001100

| 00011001

---

00011101 = 29 (In Decimal)

2. **Bitwise AND:** The bitwise AND & operator returns 1 if and only if both the operands are 1. Otherwise, it returns 0.

Example: 12 = 00001100 (In Binary)

25 = 00011001 (In Binary)

Bitwise AND Operation of 12 and 25

00001100

& 00011001

---

00001000 = 8 (In Decimal)

3. **Bitwise XOR:** The bitwise XOR ^ operator returns 1 if and only if one of the operands is 1. However, if both the operands are 0 or if both are 1, then the result is 0.

Example : 12 = 00001100 (In Binary)

25 = 00011001 (In Binary)

Bitwise XOR Operation of 12 and 25

00001100

^ 00011001

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$$00010101 = 21 \text{ (In Decimal)}$$

4. **Bitwise Complement:** The bitwise complement operator is a unary operator (works with only one operand). It is denoted by  $\sim$ . It changes binary digits 1 to 0 and 0 to 1.

Example:  $35 = 00100011$  (In Binary)

$$\sim 00100011$$

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$$11011100$$

5. **Left shift operator:** The left shift operator shifts all bits towards the left by a certain number of specified bits. It is denoted by  $\ll$ .

**Example:**

$$212 = 11010100 \text{ (In binary)}$$

$$212 \ll 1 = 110101000 \text{ (In binary)}$$

$$212 \ll 0 = 11010100 \text{ (Shift by 0)}$$

6. **Right shift operator :** The signed right shift operator shifts all bits towards the right by a certain number of specified bits. It is denoted by  $\gg$ . When we shift any number to the right, the least significant bits (rightmost) are discarded and the most significant position (leftmost) is filled with the sign bit.

**Example :**

$$212 = 11010100 \text{ (In binary)}$$

$$212 \gg 2 = 00110101 \text{ (In binary)}$$

$$212 \gg 7 = 00000001 \text{ (In binary)}$$

## EXAMPLE PROGRAM FOR BITWISE OPERATORS:

```
class Bitwise {  
    public static void main(String[] args) {  
        int number1 = 12;  
        int number2 = 25;  
        int result1 = number1 | number2;  
        int result2 = number1 & number2;  
        int result3 = number1 ^ number2;  
        int result4 = ~number1;  
        int result5 = number2 << 2;  
        int result6 = number2 >> 2;  
        System.out.println("Bitwise or :"+(result1));  
        System.out.println("Bitwise and :"+(result2));  
        System.out.println("Bitwise xor :"+(result3));  
        System.out.println("Bitwise complement :"+(result4));  
        System.out.println("Bitwise left shift:"+ (result5));  
        System.out.println("Bitwise right shift :"+(result6));  
    }  
}
```

### OUTPUT:

```
Bitwise or :29  
Bitwise and :8  
Bitwise xor :21  
Bitwise complement :-13  
Bitwise left shift:100  
Bitwise right shift :6
```