

# Basavaraj Aili

+91 8618231822 | [basavarajaili515@gmail.com](mailto:basavarajaili515@gmail.com) | [linkedin.com/in/basavaraj-aili](https://www.linkedin.com/in/basavaraj-aili)  
| [github.com/BasavarajAili1](https://github.com/BasavarajAili1)



## CAREER OBJECTIVE

Self-motivated and hardworking fresher seeking for an opportunity to work in challenging environment to utilize my skills and knowledge to achieve personal goals as well as organizational goals.

## EDUCATION

### VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM

Jain College of Engineering and Technology

Hubli

Bachelor of Engineering in Electronics & Communication Engineering,

CGPA: 7.49

Dec 2020 – Jun 2023

### ANJUMAN E ISLAM POLYTECHNIC

Diploma, Percentage: 66.18%

Gadag

Jul 2017 – Sept 2020

### ST JOHNS HIGH SCHOOL

Class 10<sup>th</sup> SSLC, Percentage: 81.92%

Gadag

April 2016 - May 2017

## INTERNSHIP

### MACHINE LEARNING INTERN

Aug 2022 – Sep 2022

Compsoft Technologies

Bangalore

- Learnt about basics of Python, Machine learning, Classification, Models, Dataset
- Researching and developing ML models to achieve maximum accuracy
- Learnt about different types of Machine Learning, Regression, GitHub...etc.

## TECHNICAL SKILLS AND INTRESTS

**Programming Languages:** Python, Verilog HDL, Basic C programming, Basics of OOPs Concepts

**Development Tools:** Visual studio Code, Jupiter notebook, Spider Anaconda, Xilinx ISE, GitHub, VMware

**Core Skills:** Microcontroller(8051), Embedded Systems(ARM Cortex M3), Computer Networks

**Soft Skills:** Leadership, Hard-working, Adaptability, Team-work

**Hobbies:** Watching technical videos, Photo Editing, Photography

## PROJECTS

### 1. Vehicle Detection & Counting using OpenCV (Jul – 2022)

- Technologies used: OpenCV, Python (libraries OpenCV, Numpy)
- Developed project to detect and count the vehicles passing on the road using python programming.
- Helps in Parking systems, Highways, Traffic areas

### 2. Voice classification using ML (Sept – 2022)

- Worked on Machine learning techniques to develop ML model to classify the human voice according to the tone (Angry, Disgust, Fear, Happiness, Pleasant surprise, Sadness, Neutral)
- Learnt about data visualization, confusion matrix
- Successfully created a GitHub repository.

### 3. An Enhancement Electricity Energy Meter using GPRS/GSM (March – 2023)

- Goal of the project is to replace the manual meter reading with remote controlling of Electricity Meter and Electricity consumption
- Providing recharging facility for consumer according to their requirements
- The system will reduce man power required for manual billing and Cut-off the load after the recharge expires.
- Technologies used: HTML, CSS, Mysql, Embedded C etc.

## CERTIFICATIONS

---

- **Developer virtual experience internship (Accenture)** – Define Technical requirements, Cloud Infrastructure, Debugging the code, Unit testing, User acceptance testing(UAT), Software development life cycle (SDLC)
- **Python Certification (Python training)** – Besant Technologies
- **Generic Online Training in Cyber Security (MeitY)** – Completed course and quiz on Cyber hygiene practices through e-learning.

## PERSONAL DETAILS

---

**Name :** Basavaraj Aili

**E-mail :** [basavarajaili515@gmail.com](mailto:basavarajaili515@gmail.com)

**Father's Name :** Virupakshappa Aili

**Mother's Name :** Lata Aili

**Date of Birth :** 15-08-2001

**Nationality :** Indian

**LinkedIn :** [linkedin.com/in/basavaraj-aili](https://www.linkedin.com/in/basavaraj-aili)

**GitHub :** [github.com/BasavarajAili1](https://github.com/BasavarajAili1)

## DECLARATION

---

I solemnly declare that all the above information is correct to the best of my knowledge and belief.

Place: Gadag

Basavaraj Aili

# Operators in Java

**Operator** in [Java](#) is a symbol that is used to perform operations. For example: +, -, \*, / etc.

There are many types of operators in Java which are given below:

- Unary Operator,
- Arithmetic Operator,
- Shift Operator,
- Relational Operator,
- Bitwise Operator,
- Logical Operator,
- Ternary Operator and
- Assignment Operator.

## Bitwise Operators in Java

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.). They are used when performing update and query operations of the Binary indexed trees.

### 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:

a = 5 = 0101 (In Binary)

b = 7 = 0111 (In Binary)

Bitwise OR Operation of 5 and 7

```
0101
| 0111
-----
0111 = 7 (In decimal)
```

## 2. Bitwise AND (&)

This operator is a binary operator, denoted by '&.' It returns bit by bit AND of input values, i.e., if both bits are 1, it gives 1, else it shows 0.

### Example:

a = 5 = 0101 (In Binary)  
b = 7 = 0111 (In Binary)

Bitwise AND Operation of 5 and 7

```
0101
& 0111
-----
0101 = 5 (In decimal)
```

## 3. Bitwise XOR (^)

This operator is a binary operator, denoted by '^.' It returns bit by bit XOR of input values, i.e., if corresponding bits are different, it gives 1, else it shows 0.

### Example:

a = 5 = 0101 (In Binary)  
b = 7 = 0111 (In Binary)

Bitwise XOR Operation of 5 and 7

```
0101
^ 0111
-----
0010 = 2 (In decimal)
```

#### 4. Bitwise Complement (~)

This operator is a unary operator, denoted by '~.' It returns the one's complement representation of the input value, i.e., with all bits inverted, which means it makes every 0 to 1, and every 1 to 0.

##### Example:

a = 5 = 0101 (In Binary)

Bitwise Complement Operation of 5

~ 0101

---

1010 = 10 (In decimal)

**Note:** Compiler will give 2's complement of that number, i.e., 2's complement of 10 will be -6.

// Java program to illustrate  
// bitwise operators

```
public class operators {
    public static void main(String[] args)
    {
        // Initial values
        int a = 5;
        int b = 7;

        // bitwise and
        // 0101 & 0111=0101 = 5
        System.out.println("a&b = " + (a & b));

        // bitwise or
        // 0101 | 0111=0111 = 7
        System.out.println("a|b = " + (a | b));

        // bitwise xor
        // 0101 ^ 0111=0010 = 2
        System.out.println("a^b = " + (a ^ b));

        // bitwise not
        // ~00000000 00000000 00000000 00000101=11111111 11111111
        11111111 11111010
    }
}
```

```
// will give 2's complement (32 bit) of 5 = -6
System.out.println("~a = " + ~a);

    }
}
```

### Output

```
a&b = 5
a|b = 7
a^b = 2
~a = -6
```

### Bit-Shift Operators (Shift Operators)

Shift operators are used to shift the bits of a number left or right, thereby multiplying or dividing the number by two, respectively. They can be used when we have to multiply or divide a number by two.

**Syntax:** number shift\_op number\_of\_places\_to\_shift;

### Types of Shift Operators:

Shift Operators are further divided into 4 types. These are:

1. Signed Right shift operator (>>)
2. Unsigned Right shift operator (>>>)
3. Left shift operator (<<)
4. Unsigned Left shift operator (<<<)

program to implement all Bitwise operators in java for user input

```
import java.util.Scanner;

public class BitwiseOperators {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.print("Enter first number: ");
        int num1 = input.nextInt();

        System.out.print("Enter second number: ");
        int num2 = input.nextInt();

        System.out.println("Bitwise AND: " + (num1 & num2));
        System.out.println("Bitwise OR: " + (num1 | num2));
        System.out.println("Bitwise XOR: " + (num1 ^ num2));
        System.out.println("Bitwise NOT: " + (~num1));
        System.out.println("Bitwise Left Shift: " + (num1 << 2));
        System.out.println("Bitwise Right Shift: " + (num1 >> 2));
        System.out.println("Bitwise Unsigned Right Shift: " + (num1 >>>
2));

        input.close();
    }
}
```

### Input

Enter first number: 4

Enter second number: 8

### Output

Bitwise AND: 0

Bitwise OR: 12

Bitwise XOR: 12

Bitwise NOT: -5

Bitwise Left Shift: 16

Bitwise Right Shift: 1

Bitwise Unsigned Right Shift: 1

### *Explanation*

This program prompts the user to enter two numbers, num1 and num2. It then performs the following bitwise operations using the &, |, ^, ~, <<, >>, and >>> operators:

Bitwise AND

Bitwise OR

Bitwise XOR

Bitwise NOT

Bitwise Left Shift

Bitwise Right Shift

Bitwise Zero Fill Right Shift

Basavaraj Ailli