

Bishnu Mahato

Junior ECE Engineer

SUMMARY

- Electronics and Communication Engineering undergraduate with hands-on experience in IoT-based embedded systems and automation, demonstrated through a Smart Street Lighting project using Arduino IDE and ESP8266.
- Proficient in Java, C, Python, SQL, and Spring Framework, with practical application in developing RESTful APIs, microservices, and console-based applications.
- Experience integrating Apache Kafka with Spring Boot microservices for transaction processing, employing Spring Data JPA and REST API integration.
- Certified in software engineering simulations and data science, with a strong foundation in data structures, algorithms, and database management.

TECHNICAL SKILLS

Main Technical Skills	Java (1 yr.), C/C++/C#, SQL, FDD
Programming Languages	Java (1 yr.), Python
C++ Libraries and Tools	C/C++/C#
JavaScript Frameworks	Node.js
Java Frameworks	Spring, Spring Boot
Java Libraries and Tools	Spring Data
AI & Machine Learning	TensorFlow
Python Libraries and Tools	TensorFlow
Databases & Management Systems / ORM	relational databases, SQL
QA, Test Automation, Security	Apache Maven, QA Automation
SDK / API and Integrations	Collections API (1 yr.), RESTful API
Methodologies, Paradigms and Patterns	FDD
Message/Queue/Task Brokers	Kafka
Other Technical Skills	: Arduino, Wi-Fi 5

WORK EXPERIENCE

Developer (Intelligent Street Lighting for Smart Cities using IoT)

Duration: Mar 2025 - present

Summary:

- The IoT-based Smart Street Lighting System integrates IoT, embedded systems, and automation for real-time monitoring and energy-efficient operation
- It aims to enhance urban infrastructure by reducing energy consumption and enabling remote control of street lights

Responsibilities:

- Developed and implemented IoT solutions for smart street lighting.
- Integrated sensors and automation algorithms for real-time monitoring.
- Ensured energy-efficient operation of street lights through embedded systems.

Technologies: Arduino IDE, NodeMCU(ESP8266), LDR sensor, LED street lights, camera module, Wi-Fi connectivity, automation algorithms

Developer (Pizza-Application using Java)

Duration: Mar 2025 - Apr 2025

Summary:

- A Java-based console application that simulates a real-world pizza ordering system, featuring menu management, order tracking, and automated billing
- The project demonstrates basic software development skills in Java and console-based user interaction

Responsibilities:

- Designed and implemented menu management and order tracking features.
- Developed automated billing functionality.
- Handled data storage using basic file handling techniques.

Technologies: Java, Console I/O, Collections (ArrayList, HashMap), Basic File Handling

Software Engineer Intern - JPMorganChase (JPMorganChase Software Engineering Job Simulation)

Duration: December 2025

Summary:

- A software engineering simulation project focused on building microservices for transaction processing using modern Java frameworks and tools
- The project involved integrating messaging systems and REST APIs to simulate banking transaction workflows

Responsibilities:

- Integrated Apache Kafka with a Spring Boot microservice to consume and process transaction messages.
- Implemented transaction validation and persistence using Spring Data JPA with H2 database.
- Integrated an external REST API using RestTemplate within transactional workflows.



- Developed RESTful endpoints to retrieve user balance data and return JSON responses.
- Tested and verified functionality using Maven test suites.

Technologies: Java, Spring Boot, Apache Kafka, Spring Data JPA, H2 database, RestTemplate, REST API, Maven

EDUCATION

- **Academy of Technology, Hooghly**
B.Tech in Electronics and Communication Engineering, CGPA: 6.84
2022-Present
- **Bankura Christian Collegiate School, Bankura**
Intermediate Education: W.B.C.H.S.E, Percentage: 78.67
2021
- **Sindri High School, Purulia**
Secondary Education: W.B.B.S.E, Percentage: 81.86
2019

CERTIFICATION

- **JPMorganChase Software Engineering Job Simulation on Forage**
Completed simulation involving Apache Kafka, Spring Boot, REST API, and Maven testing.
- **Java Internship**
Internship Studio
- **SQL (Basic) certification**
HackerRank
- **Data Science using Python**

