Sahil Kumar Sahu

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Full Stack Developer (1+ years) specializing in end-to-end web solutions. Core expertise in modern **Java, Python, JavaScript & UNIX(Ubuntu)** with full proficiency in front-end, back-end, cloud deployment, IoT, and database systems. Delivered production-grade applications with optimized architecture and real-time capabilities.

Professional Experience

Software Developer Intern — *Bhubaneswar, Odisha*
Kyoros Tech Pvt. Ltd. — *May 2024 – Nov 2024*

- Architected **SaaS-based** ICU patient **monitoring platform** collaborating with founders to build MVP for real-time healthcare data management using Next.Js, Express.js, Typescript, Prisma, and Gemini APIs.
- Optimized PostgreSQL queries with **Redis caching**, reducing API response time from 1.2s to 0.36s (70% faster)
- Built real-time collaboration platform using **WebSocket for live monitoring** and Firebase Push Notifications for alerts
- Implemented **AWS S3** integration for diagnostic reports with Docker Compose deployment on **Amazon EC2**

Founding Engineer Intern — *Aug 2023 – Jan 2024*
Neuvision Technologies Pvt. Ltd.

- Developed **quick commerce platform** connecting users with nearby cloud kitchens using Flutter, Express.js, MongoDB, Next.js, GraphQL
- Optimized database schema and implemented MongoDB **geospatial aggregation for location-based discovery** with **GraphQL** for bandwidth optimization
- Deployed to GCP Cloud Run with serverless architecture and established **CI/CD pipeline** using Google Cloud Build

Key Projects

Influencer Management SaaS Platform — *Live Demo* — *GitHub* — *May 2025*

- Built comprehensive **SaaS platform** for influencer discovery and outreach automation across multiple social media platforms
- Implemented **AI-powered voice agent** using VAPI for **human-like conversations** with **automated email/SMS outreach** via MailGun & Twilio
- **Tech Stack:** React, TypeScript, Supabase, VAPI, MailGun, Twilio, Vercel

Open Channel Flow Monitoring System — *GitHub* — *Dec 2024 - Apr 2025*

- Developed a patented real-time wave monitoring system using **Python-based Kafka pipelines** to extract wave metrics from sensor data, based on signal processing and hydrology research; **deployed on on-premise college** servers.
- Implemented a **high frequency (10ms)** data logging pipeline using **Kafka Connect** to integrate **MQTT** for sensor ingestion, **InfluxDB** for real-time analytics, and **Amazon S3** for cost-effective long-term storage.
- Created web-based visualization dashboard using Grafana deployed in university's Open Channel Flow Lab
- **Tech Stack:** Python, MQTT, Kafka, InfluxDB, Docker, Grafana, IoT (ESP32, MPU6050)

SmartHome Management System — *GitHub* — *Aug 2023*

- Developed a full-stack IoT solution for real-time appliance tracking using Embedded sensors, with predictive analytics and mobile alerts via **React Native (WebSocket/Redux)**
- Engineered a **Django backend (SQLite)** for device communication, achieving 99.9% uptime in command routing and data logging
- Built an **interactive dashboard using React Native Chart Kit and SVG visualizations**, displaying real-time **energy patterns and historical trends**
- **Tech Stack:** Django, React Native, MQTT, WebSocket, ESP 32, REST API, Docker

Technical Skills

Proficient:	Java, Python, Javascript, React.js, Next.js, Node.js, MongoDB, PostgreSQL, Git, Docker, AWS (EC2, S3)
Familiar:	GraphQL, Redis, Firebase, Appwrite, Flutter, GCP (Cloud Run), Kafka, React Native
Tools:	Postman, Vercel, Grafana, Prisma

Education

Bachelor of Technology in Electronics and Instrumentation CGPA: 7.87/10.0
Odisha University of Technology and Research (formerly CET, BBSR)

- Relevant Coursework: Digital Electronics, Microprocessors and Controllers, Signals and Systems, Fundamentals of Communication
- Final Year Project: Novel research on generating a new chaotic map for embedded devices and FPGA implementation using Verilog
- Expertise in **Java (OOPs, DSA, SOLID)** with 350+ Leetcode solutions spanning Trees, DP, Queues, and system optimization.
- Patent Project: Real-time wave monitoring system for hydrodynamics research (Open Channel Flow project)