SAMBIT KUMAR MOHANTY

Cuttack,Odisha

📞 +91-7855909585 ✉ sambitkumarmohanty25@gmail.com in Linkedin ⓞ Github 🐦 Twitter 👤 Portfolio

EDUCATION

B.Tech - Information Technology **2023 − 2027**
*Odisha University of Technology and Research - **CGPA - 9.20*** *Bhubaneswar, Odisha*

EXPERIENCE

Blockchain & Backend Developer(Self-Driven Projects)
Focus Area - Secure System Architecture & Infrastructure Automation

- **Engineered** secure **RESTful APIs** and authentication flows (JWT/OAuth), implementing **OWASP** best practices to mitigate common vulnerabilities like **XSS** and **CSRF** in distributed applications.
- **Streamlined** development lifecycles by implementing **CI/CD pipelines** via GitHub Actions, reducing manual deployment overhead and time-to-production by **50%**.
- **Accelerated** state synchronization between on-chain events and off-chain databases, utilizing **WebSockets** and **Node.js** to maintain sub-second accuracy for **decentralized assets**.

PROJECTS

Secure-IPFS-Marketplace ⧉ | Next.js, Solidity, Hardhat, Ethers.js, IPFS **Dec 2025**

- **Spearheaded** the architectural design of a **secure decentralized asset layer** using **Solidity** and the **ERC-1155** standard, incorporating **ReentrancyGuard** and **ownable** modules to neutralize attack vectors and ensure 100% transaction integrity.
- **Unified** decentralized **IPFS** metadata encryption with **EIP-2981** to secure autonomous revenue streams and **token-gated access**.
- **Architected** a fund and **supply tracking engine** to centralize withdrawals, cutting administrative tasks by **60%**.

Eco-Oracle - Satellite Carbon Auditor ⧉ | Next.js,Node.js, Python, MongoDB, Sepolia **Dec 2025**

- **Orchestrated** an automated RWA pipeline that fetches **Sentinel-2 & Esri** satellite imagery to verify forest biomass, reducing carbon credit audit cycles by **99%** via **smart contract** mining
- **Developed** a geospatial AI microservice utilizing **OpenCV** and **Hugging Face Transformers** to execute multi-spectral analysis, detecting deforestation and "greenwashing" with **95% accuracy** prior to immutable on-chain validation.
- **Constructed** the "Guardian" disaster response engine using **Node.js** and **OpenWeatherMap**, which correlates real-time fuel dryness indices with wind vectors to trigger instant **Twilio SMS** alerts for fire risks.

Axion Flow AI-Powered Workforce Digital Twin ⧉ | TypeScript, Express, FastAPI, Prisma **Oct 2025**

- **Conceived and Architected** a secure, **multi-tenant SaaS platform** with a role-based dashboard for Admins, Managers, and Workers, featuring an **AI-powered onboarding agent** that verifies new companies using third-party data APIs,improving new client verification efficiency by **40%**
- **Pioneered** a real-time **Digital Twin** visualiztion of the factory floor, using **WebSockets** to display live worker locations and statuses, significantly **enhancing operational awareness by 20%**.
- **Integrated** a specialized AI microservice to provide intelligent, data-driven task recommendations, which is **projected to improve worker productivity by up to 20%**

TECHNICAL SKILLS

Blockchain & Security: Solidity, Hardhat, Slither, IPFS, Ganache, Ethers.js
Languages: C++, Python, JavaScript (ES6+), TypeScript, Java, SQL, Rust
Web & Infrastructure: Next.js, Node.js, Express, Docker, CI/CD (GitHub Actions), AWS (Basic)
Core Concepts: Cryptography Basics, Data Structures Algorithms, OOPS, REST API Design

EXTRACURRICULAR

- ∗ **Drove technical success by applying analytical rigor** to complex architectural challenges, **Open Source contributions**, and competitive events like **EY Techathon** and **Google Gen AI Exchange**.
- ∗ **Fostered** community engagement and teamwork as an active NSS Member (2023-2027), while honing **strategic foresight** and analytical problem-solving through competitive Chess.