

ASHISH KUMAR SAHOO

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[Phone](#) | [Mail](#) | [GitHub](#) | [LinkedIn](#) | [Twitter](#) | [Telegram](#) | [Blogs](#)

TECHNICAL SKILLS

Languages: Solidity, JavaScript, TypeScript, HTML

Frontend: React.js, Next.js, Bootstrap5, TailwindCSS

Backend: Node.js, Express, MongoDB

Web3: Web3.js, Ethers.js, Wagmi, DeFi, ERC20, ERC721, ERC1155, ERC4626

Blockchain: Ethereum, Binance, Polygon, Arbitrum

Tools: VS Code, RemixIDE, Git, Hardhat, Foundry

WORK EXPERIENCE

Blockchain Developer / Aarna Protocol

NOV. 2023 – AUG. 2024

- Led the development of a **multi-platform liquid staking** smart contract on **Ethereum**, improving user staking experience by integrating protocols such as **Lido, Ankr, Frax, and EigenLayer**.
- Architected advanced **liquid restaking solutions**, **optimizing yield generation and enhancing capital efficiency** across multiple blockchain networks, increasing user returns by 30%.
- Implemented robust security measures**, resulting in a 50% reduction in potential vulnerabilities and enhancing user trust.
- Integrated these protocols to create a seamless, **user-centric staking experience**, increasing user engagement by 40%.

Freelance Smart Contract Developer / SubLabs

JUL. 2023 – DEC. 2023

- Collaborated with a team to design and deploy smart contracts for decentralized applications, ensuring secure and efficient contract functionality.
- Optimized and tested contract** functionality, reducing deployment errors by 20%.
- Applied **Uniswap V3 architectural** principles to Tayaswap contracts, enhancing scalability and efficiency, resulting in a 25% performance boost.
- Focused on **creating secure smart contracts** that align with industry best practices, improving contract robustness by 30%.

Web3 Developer / BSBSTech Pvt. Ltd.

MAR 2023 – JUL 2023

- Developed sophisticated smart contracts for **token staking, P2P transactions, and referral program**.
- Explored **advanced blockchain concepts**, including **consensus mechanisms and token economics**.
- Integrated **Web3 libraries (web3.js, ethers.js, wagmi)** with **Next.js and React** to create robust **decentralized applications**, increasing functionality and user satisfaction by 25%.

Blockchain Developer / NFThing

MAY 2022 – NOV. 2022

- Developed foundational smart contracts for **NFT-focused** decentralized applications, enhancing system security and reliability by 30%.
- Integrated diverse **Web3 APIs** for comprehensive **NFT information retrieval**, improving data accessibility and user experience by 40%.
- Conducted thorough **security testing and code reviews**, reducing security vulnerabilities by 50%.
- Engineered a **custom Web3 API** for seamless **NFT data analysis and presentation** within the **DApp**, increasing data processing efficiency by 30%.

PROJECTS

Onchain Credit Score System:

- Created a blockchain-based credit scoring mechanism using Solidity smart contracts and Node.js, ensuring secure and transparent credit evaluations.
- Assessed user credit scores based on transaction history, wallet balance, and other on-chain data, providing accurate and reliable credit assessments.
- Designed a RESTful API that fetches real-time user transaction data and updates the credit score on the contract after 21 days, improving data accuracy and timeliness.
- Integrated with the Ethereum blockchain using Ethers.js and Tatum SDK, enhancing the system's scalability and security.
- Deployed on the Ethereum Sepolia testnet for demonstration and testing, validating functionality and performance before mainnet launch.

DeWork (Decentralized HR and Payroll Management System): [🔗](#)

- Built a blockchain-based HR system featuring token incentives for employee engagement, motivating and rewarding punctuality and extra work.
- Implemented smart contracts for secure employee data management on Ethereum, ensuring data integrity and security.
- Integrated IPFS for decentralized storage of employee information, reducing reliance on traditional databases and enhancing data resilience.
- Developed a token-based reward system for tracking punctuality and additional work hours, promoting employee accountability and productivity.
- Created a Web3-enabled frontend using Next.js for seamless blockchain interaction, improving user experience and accessibility.

Decentralized Research Paper Vault (DRPV): [🔗](#)

- Designed a blockchain-based platform to transform academic publishing and licensing, offering a decentralized alternative to traditional models.
- Developed smart contracts in Solidity for secure, transparent paper licensing, ensuring fair and reliable transactions.
- Incorporated IPFS for decentralized storage of research papers, fully decentralizing the system and enhancing data security.
- Built a user-friendly frontend with Next.js for paper uploads and user interactions, improving accessibility and ease of use.
- Designed a cryptocurrency-based system for fair author compensation, ensuring authors are rewarded upon the purchase of their research papers.

FluidPass (Dynamic Event Payment System) | MetaSchool R2W3-II Winning Project: [🔗](#)

- Engineered a blockchain-based event payment system utilizing the Superfluid protocol, providing real-time payment streaming for events.
- Designed a responsive frontend using Next.js and Ethers.js for user interactions, enhancing user experience and engagement.
- Integrated Superfluid SDK for dynamic, time-based compensation of event attendees, ensuring fair and accurate payments.
- Utilized the Polygon blockchain, reducing transaction costs and improving efficiency.
- Created a system for fair, transparent compensation based on actual event engagement, promoting transparency and fairness in event payments.

EDUCATION

MASTER OF COMPUTER APPLICATIONS (MCA)

INSTITUTE OF MANAGEMENT AND INFORMATION TECHNOLOGY (IMIT), CUTTACK

2020 – 2022

CGPA:9.18

PUBLICATIONS

- [Guide to prevent access control flaw](#)
- [Guide to reentrancy vulnerabilities](#)