anjanayraina326@gmail.com • Github • Portfolio Website

SUMMARY

Blockchain Developer, Smart Contract Auditor, and Data Scientist with 3+ years of experience delivering secure, efficient smart contracts and data-driven solutions. Proven track record in DeFi, machine learning, and Web3 protocols. Skilled in Solidity, Python, Java, and Golang, with a strong focus on security auditing, gas optimization (achieved 60% gas savings), scalable protocol design, and robust infrastructure development.

WORK EXPERIENCE

Independent Smart Contract Auditor

July 2023 - Present

- Performed comprehensive security audits for **Zus Network**, **Empower Coin**, **Moonvera Solutions**, and other Web3 firms, identifying and resolving **50+ critical issues**.
- Led audits for Moonvera Solutions and Zus Network, ensuring adherence to top-tier security standards and implementing effective gas optimizations.
- · Achieved **60% gas savings** by leveraging tools such as **Slither**, **Foundry**, and **Solidity Metrics**, reducing costs and enhancing transaction efficiency.
- · Ranked among the top 300 global auditors on Code4rena (345) and Sherlock (846), reflecting strong security work.
- Utilized advanced tooling (**Solodit, Aderyn, Audit Wizard**) and produced comprehensive **Audit Reports** to document findings and remediation steps.

NatWest Group | Data Scientist

July 2024 - Present

- Developed and maintained real-time data pipelines for cleansing and preprocessing payments data, seamlessly integrating results with **Tableau**.
- Implemented a robust real-time data analysis pipeline with automated testing, alerting, and monitoring tools, reducing response times by 40%.
- · Applied **ARIMA**, **SARIMA**, and **Prophet** models to improve forecasting accuracy for user logins.
- Employed **Matplotlib** and **Seaborn** for trend visualization and correlation analysis, enabling data-driven decision-making.

DLT Labs | Student Researcher

January 2023 - July 2023

- Pioneered a **Two-Layered Blockchain Architecture** in telecommunications to mitigate mobile theft, achieving a **100x** faster resolution time.
- · Integrated Hyperledger Fabric and authored a research paper submitted to IEEE Ants.
- Research Paper

Chatbuck | Blockchain Developer

January 2022 - August 2022

- Engineered a **Layer 2 solution** for messaging with **Web3** integration using **Infura**, enhancing UI responsiveness.
- Deployed an ERC-20 token to streamline payment processing, supporting 50,000+ users.

PROJECTS

VertexSwap (In Progress)

Github

- · Developed a decentralized exchange with zero fees and sandwich attack protection, ensuring secure transactions.
- · Designed **atomic arbitrage** and implemented **cross-chain arbitrage** strategies, maximizing trading profits.
- · Extended ERC4626 support for multi-token base assets, increasing protocol flexibility.
- · Created a rigorous testing framework with unit, fuzz, and invariant tests, ensuring reliability.
- · Optimized the AMM model, reducing gas costs by 40%, and identified vulnerabilities with Foundry and Slither.

PerpetualVault

Github

- · Architected a **Perpetuals Position Protocol** with **ERC4626**-compliant contracts for streamlined liquidity and collateral management.
- · Integrated Chainlink Oracles into a Double Oracle System, ensuring reliable, real-time pricing data.
- Strengthened protocol robustness through comprehensive security audits, invariant tests, and fuzz testing using Foundry.

SKILLS

Programming Languages Solidity, Yul, Python, Java, Golang, Rust, SQL, JavaScript, TypeScript

Blockchain Tools Hardhat, Anchor, Foundry, Slither, OpenZeppelin, Chainlink, Superfluid, Solidity Metrics

Frameworks & APIs React|S, Ethers.js, Infura, Alchemy, Docker, Hyperledger Fabric, Metamask

EIP/ERC Standards ERC20, ERC721, ERC1155, ERC4626, ERC165, ERC777, ERC2981

Platforms Code4rena, Sherlock, Remix, GitHub, VS Code, Linux

AWARDS AND POSITIONS OF RESPONSIBILITY

Peak Hackathon Winner

July 2024 - July 2024

Secured **2nd place** at the Peak Hackathon organized by Mantra Chain, recognized for innovative solutions.

Aptos Winter School IIT Bombay

December 2023 - December 2023

Selected among **60 students in India** for a prestigious blockchain winter school, demonstrating strong subject-matter expertise.

GDSC Blockchain Mentor

August 2023 - June 2024

Served as a **Google Developer Student Club Core Member and Blockchain Mentor**, guiding peers in decentralized technologies.

EDUCATION

Indraprastha Institute of Information Technology, Delhi

January 2021 - July 2024

B.Tech (Computer Science & Biosciences)