Abhijit Roy

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👤 Profile

I am a versatile Software Developer specialized in Blockchain technology with more than 7 years of experience as CTO, HoD, Lead/Senior Blockchain Developer in various Web3 startups, projects mostly related to Smart contract & Back-end development in NFT, DeFi, Gaming, utility category. I hold multi-chain development experience with leading Blockchain protocols like EVM, EOSIO, Substrate, Solana; also contributed in many open-source projects lately.

> I have consistently delivered high-quality work across various projects. Despite facing challenges such as changes in funding or management style, my focus on producing stellar results has remained unwavering.

🖥️ Experience   7+ years

🎓 Education

2014 – B.Tech in Avionics, **IIST**, Trivandrum

👤 Coding Languages

Rust, Solidity, C++, JavaScript, TypeScript, Python, Java, XML, Markdown

🎗️ Achievements

- Contributed to Opensource projects: Uniswap v2, OpenZeppelin, Telos Blockchain, STFX, Substrate Runtime & SC ink lang, Rustlings.
- Developed Polygon's native stablecoin using a multi-collateral CDP approach, incentivizing staking to prevent liquidation, informed by research into MakerDAO, Liquity and Yeti Finance.
- Bagged 2nd rank in SNI Hack 2021 competition as a EOSIO Blockchain Developer (Presenter) for a project "Ceven.Parks".
- Built the architecture of GameFi project – "Bowled.io" with play-to-earn game-fi intent using different types of cards as NFT categories.
- Represented DRIFE as CTO in World Blockchain Summit (WBS) held at Dubai in October 2018, where it was ranked as the best start-up in utility tokens category. Recently, the project got appreciated with UNESCO award for its innovation.
- I also managed the largest Semiconductor community on Telegram via a channel driven by AI generated content via Chatbot.
- I provided online education services through my Udemy account – Block.Hub Academy which has a total of 300 (approx. & counting) students enrolled for 4 courses to date.
- I have done mentorship (individual/group), delivered talks, sessions at Universities.

💼 Career Timeline

June 2023 – | Looking for Job opportunity
- Upskilling with Rust based Blockchains – Substrate, Solana, etc.; zkStark Cairo; System Design.

Nov 2022 – June 2023 | Head of Blockchain Department at Rapid Innovation | Full-time
- R&D on ZKP algorithms, Project lead for building ZKP module with zkSNARK for Fuel Blockchain.
- Have worked on DeFi auto-compounding vault based on Tetu protocol using Foundry with contracts & scripts written using Solidity.
- Engineering Architect for NFT marketplace projects like Xstrela, VTR Connect, TGE projects like Orasis with extensive research on custom wallet development.
- Audited the Projects' Solidity & Rust codebase for security vulnerabilities, code optimization, testing, documentation.
- Collaborated on the Xstrela project, building scalable, thread-safe APIs using the Actix-web framework in Rust.
- Upgrade the foundation stone for the blockchain department considering latest evolution in terms of SC security & Gas optimization techniques, Use of Foundry tool, Fuzz testing. Periodic leadership on the project estimation on RFP received from several major clients.

May 2022 – Oct 2022 | Senior Smart Contract Backend Engineer at Upside | Full-time
- Collaborated with auditors from Quantstamp, Certik, Omniscia on Token, Vesting, Staking smart contracts for clients including Metacraft, Delysium, and Zedrun, etc.
- Designed AMM & Developed smart contracts for DEX - "Bioform" with MIT using their free-energy based parametrized model.
- While writing smart contracts, I ensured testing, deployment scripts, flattening, verification, fuzzy-testing, gas optimization (using Yul, Solidity), contract-size optimization of smart contracts using Truffle, Hardhat, Foundry tools before deploying to mainnet, testnet.
- Co-developed and led 'Zippy' TGE tool project, crafting architecture with whitepaper, built REST APIs with NextJS, and conducting API tests via data mocking and integrated Swagger UI; also managed Firebase's NoSQL & SQL databases. Proficient in React and Redux.
- Implemented CI/CD via GitHub Actions and Docker for automated testing and repository packaging, respectively.

Dec 2021 – May 2022 | CTO at Theia Finance | Contract
- Architected a modular, upgradeable platform and smart contract system leveraging ERC-2535 Diamond Standard. Also crafted a DAO-governed crowdfunding platform based on bonding curves; also featured an option of collective formation by top investors.
- Drove product iterations and custom token faucet trials, boosting Discord community from 300 to 30k, while managing database scalability for concurrent usage.
- Engaged in product design deliberations, whitepaper composition, and provided extensive hands-on guidance for full-stack and blockchain development to the team.
- Researched cross-chain capabilities via Layerzero and Axelar projects, including engaging in technical discourse on Axelar's features.
- Collaboratively wrote and audited smart contracts, enhancing security, optimizing gas use, and minimizing contract size.

Nov 2021 – Mar 2022 | Senior Blockchain Engineer at Master Ventures | Contract
- Collaborated on translating an EVM crowdsale smart contract from Solidity to Solana using Rust language; also documented.
- Played a key role in the launch of the native Polkadot parachain, 'Paidchain,' leveraging Substrate, Cumulus repositories, and CLI tools for network launch.
- Evaluated Paidchain deployment by executing a sample EVM smart contract development lifecycle via Hardhat; also documented.

Jul 2021 – Sep 2021 | Lead Blockchain Developer at DeFi start-up – 'Boot Finance' | Full-time
- Conducted extensive research on Uniswap, Curve, and Saddle to write smart contracts for a DEX, utilizing native CustomSwap AMM and liaised with a Quant researcher.
- Developed robust test cases with Hardhat Typescript for the smart contracts – DEX, Vesting, Token.
- Leveraged data wrangling techniques to categorize and modify user token allocations within GSheets; wrote API scripts for file upload.
- Explored the Aave protocol in order to add lending/borrowing feature on top of the platform.

Jan 2019 – Jun 2021 | Freelancing as Web3 Full-stack Engineer | Full-time
- Developed on-chain and off-chain NFT projects using ERC721, ERC1155 standards, and NodeJS, Solidity, Hardhat. Automated deployment of Dynamic NFTs to IPFS, Arweave.
- Worked on diverse EVM smart contract projects related to ERC20 Token's variants, Vault, Staking, NFT Marketplace, Auction for clients.
- Worked on diverse EOSIO smart contract projects - GPK.Battles (Betting game with RNG Oracle), Tipping, ICO (single/multi phases), Staking, Vault using C/C++, JS/TS.
- Developed three Telegram Bots (Tipping, KYC, Quiz) using EOSIO smart contracts and integrating Heroku Redis databases.
- Developed 'Autoplot,' a CLI-based data visualization software leveraged in the Indian Space Program for comprehensive analytics based on parsed Excel data.
- Worked on numerous data wrangling projects in the semiconductor industry using Python and Rust; developed custom scripts.

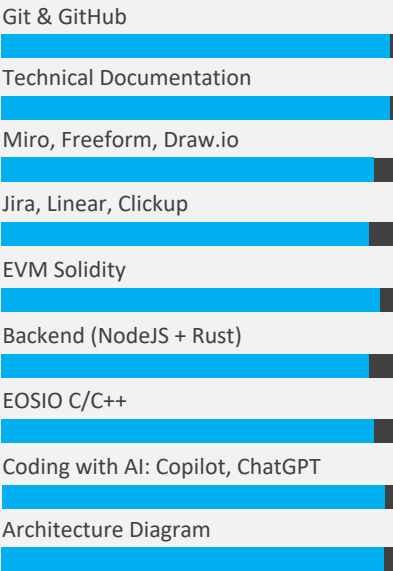**Feb 2018 – Dec 2018 | Founding CTO at DRIFE | Full-time**
- Developed ride-sharing smart contracts for EOSIO blockchains.
- Established an interdisciplinary team for engineering, sales, marketing, and content creation.
- Designed & Formulated tokenomics and revenue model for a zero-fee ride platform.
- Authored technical whitepaper outlining governance, economics, and technology pillars & platform architecture and product workflow.
- Presented at the WBS event and successfully pitched to ~ 35 investors, resulting in recognition as one of the most innovative projects.

Sept 2016 – Jan 2018 | Freelancing as Web3 Full-stack Engineer | Full-time
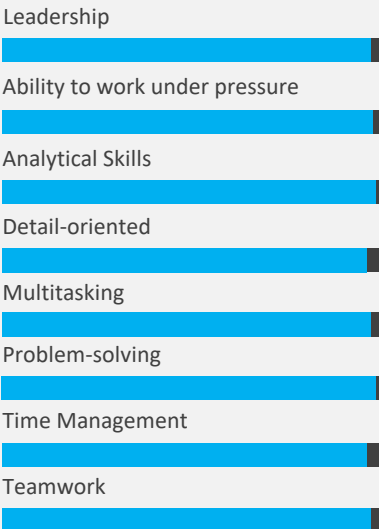- As a full-stack developer, I created an Android App - "BitInfoCoin" for web3 space to provide crypto related services like show nearby crypto ATMs, exchanges, crypto price, news feed.
- Researched and analyzed the EVM technology stack and early Solidity codebase to write simple contracts.
- Extensive research into Steem blockchain's Tokenomics model & deep dived into EOS blockchain codebase. Wrote several contracts using C++; also written test scripts; deployment using CLI.
- Recognized as a leading technical content creator for the Utopian developer community on the Steem Blockchain; also researched their consensus algorithm – 'Proof of Brain'.
- I have published many unique content related to Blockchain, Data Science on Medium, LinkedIn.

🛠 Skills

- Developer Skills

Git & GitHub

Technical Documentation

Miro, Freeform, Draw.io

Jira, Linear, Clickup

EVM Solidity

Backend (NodeJS + Rust)

EOSIO C/C++

Coding with AI: Copilot, ChatGPT

Architecture Diagram

- Inter-personal Skills

Leadership

Ability to work under pressure

Analytical Skills

Detail-oriented

Multitasking

Problem-solving

Time Management

Teamwork

Hobbies