

# Sergei S.

## Senior Blockchain Engineer

### SUMMARY

- Blockchain Developer with 5 years of experience building decentralized applications (dApps) using Solidity and Rust across EVM-compatible chains (Polygon, BSC, Base) and Solana. - Proficient in frameworks such as HardHat and Anchor for developing, testing, and deploying smart contracts, with hands-on experience integrating wallets like MetaMask and working with DeFi protocols including Uniswap, Aave, and Alpaca Finance. - Experienced in implementing and customizing token standards such as ERC-20, ERC-721, ERC-721A, and ERC-1155, as well as secure signing mechanisms via EIP-712. - Skilled in smart contract auditing and fuzz testing using tools like Slither, Mythril, and RustSec, ensuring robust and secure codebases. - Adept in version control and collaboration using Git and GitHub, with a focus on maintainable and testable code. - Experienced in blockchain data indexing and integration using The Graph/Subgraphs, enabling efficient access to on-chain data across applications. - Well-versed in cross-chain development and decentralized identity (DID), contributing to secure, scalable, and user-centric Web3 ecosystems.

### TECHNICAL SKILLS

<b>Main Technical Skills</b>	Solana (1 yr.), Solidity (4 yr.)
<b>Programming Languages</b>	JavaScript, Python, Rust, Solidity (4 yr.), TypeScript
<b>Rust Libraries and Tools</b>	Cargo
<b>JavaScript Libraries and Tools</b>	Ethers.js, Web3.js
<b>JavaScript Frameworks</b>	React
<b>Python Libraries and Tools</b>	Web3.py
<b>Blockchain and Decentralized Software</b>	Aave, Anchor, BSC, DAO, ERC-1155, ERC-20, ERC-721, Ethers.js, Hardhat, MetaMask, OpenZeppelin, Polygon, Solana (1 yr.), Uniswap, Web3.py
<b>Version Control</b>	Git, GitHub
<b>Other Technical Skills</b>	Alpaca Finance, Base, DeFi Metachain, EIP-712, ERC-721A, EVM networks, Fuzz, HTML/CSS, Mythril, PancakeSwap, Pyth, RustSec, Slither, Solhint, SPL, Subgraphs, v2/v3, WAGMI, Wallets integration, Wormhole

## EXPERIENCE

### DEFI ECOSYSTEM HUB

04.2023 - till now

**Description:** DeFi Ecosystem Hub offers next-generation decentralized finance (DeFi) products built on DeFiChain, a Bitcoin-based blockchain that incorporates native DeFi capabilities.

#### Responsibilities:

- Blockchain development;
- Design project architecture;
- Prepared reports summarizing audit findings and recommendations for improvement;
- Integration with Wormhole;
- Integrated with new blockchains and side-chains to increase the multichain infrastructure;
- Implemented buy and burn algorithms;
- Optimized performance of blockchain applications and smart contracts;
- Developed smart contracts for various DeFi products;
- Integrated with decentralized exchanges and other DeFi protocols;
- Updating and maintaining smart contract code and associated documentation as required to ensure accuracy and adherence to evolving standards;
- Maintained up-to-date knowledge of emerging blockchain and Python technologies, and led the adoption of best practices within the team;
- Contributed to high-level architectural decisions for blockchain infrastructure and software systems, ensuring alignment with business goals;
- Implemented EIP-712 for secure and efficient signatures;
- Implemented robust security measures for all smart contracts to safeguard users' assets;
- Created comprehensive documentation for smart contracts, integration processes, and architecture design;
- Analyzed and refined transaction processing to improve throughput and user experience;
- Code review.

**Environment:** Python, Solidity, Hardhat, Solhint, Wormhole, Base, Slither, Mythril, ERC-20, ERC-1155, ERC-721, ERC-721A, EIP-712, Web3.py, Pyth, Subgraphs, Aave, DAO, DeFi Metachain, Uniswap v2/v3, GitHub.

### INVESTMENT PLATFORM

06.2021 - 04.2023

**Description:** Platform for investment in digital assets. The De-Fi platform combines a variety of broad functionality that makes it easier to work, the automation of many functions makes the user's work easier.

#### Responsibilities:

- Blockchain development using appropriate technologies and frameworks;
- Blockchain integration into applications, developing APIs and ensuring compatibility;
- Smart contract development to automate processes, manage assets, and enforce business rules;
- Custom algorithm development to address specific blockchain requirements;
- ERC-721 implementation for NFTs;



- ERC-20 token development;
- Wallet integration for storing and managing digital assets;
- Build wallet connection UI using Wagmi hooks within React components;
- Smart contract development for blockchain migration;
- Mentoring new developers on blockchain concepts and best practices;
- Code review to ensure quality, identify issues, and enforce standards.

**Environment:** Solidity, JavaScript, TypeScript, ethers.js, Wagmi, React, HTML/CSS, web3.js, Wallets integration(Metamask), EVM networks, Polygon, Binance Smart Chain, PancakeSwap, Uniswap v2, OpenZeppelin, ProxyContract, Alpaca Finance, EIP-721, ERC-20, GitHub.

## PLAY2EARN GAME

04.2020 - 06.2021

**Description:** Web3.0 application with play2earn mechanics, which is on movement by car. Users owning a car earn standing in traffic, being behind the wheel while traveling, moving a car around the city. Each NFT car owner earns in-game currency, which can be used in-game or cashed in for profit.

### Responsibilities:

- Blockchain development;
- Conducting security audits using RustSec to identify vulnerabilities and potential risks within dependencies and code;
- Writing and testing smart contracts using SPL;
- Development of dApp applications by integrating blockchain technology with gaming mechanics, including tokenomics and NFT assets;
- Specify and implement consensus mechanism;
- Developing and optimizing system components for transmitting and receiving payments;
- Customize transaction execution;
- Optimize smart contracts for gas efficiency to minimize transaction costs for users;
- Conduct performance testing and benchmarking of blockchain transactions to ensure scalability;
- Build custom runtime upgrade mechanisms;
- Implementing utility tokens;
- Integrate off-chain data services to enhance gameplay experiences and provide real-time data for in-game events;
- Building custom metrics and monitoring systems;
- Functional test of blockchain;
- Solve security issues;
- Mentoring new developers;
- Code review.

**Environment:** Rust, JavaScript, TypeScript, RustSec, Cargo, AuditRust, Fuzz, Solana, Anchor, SPL, Raydium, GitHub.

## EDUCATION

### Computer Science and Software Engineering

