# Terry Boyd

# Senior Blockchain Engineer

Memphis, Tennessee, United States

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#### SUMMARY

Innovative and detail-driven Blockchain Engineer with over 7 years of experience specializing in the architecture, development, and deployment of smart contracts and decentralized systems across Ethereum, zkSync, Optimism, and other L2s. Adept in Solidity, Rust, and Vyper, with a proven track record of shipping secure, gas-optimized, and scalable protocols. Known for deep knowledge of cryptographic primitives, DeFi protocols, zk rollups, and L2 mechanics. Passionate about building composable infrastructure and mentoring blockchain teams in high-growth environments.

#### SKILLS

- Smart Contract Development: Solidity, Vyper, Rust, Foundry, Hardhat
- Chain Ecosystems: Ethereum, zkSync, Optimism, Arbitrum, Aptos, Polygon
- Security & Auditing: Slither, MythX, fuzzing, formal verification tools
- Backend & Full Stack: Node.js, Go, TypeScript, PostgreSQL, Redis
- CI/CD & DevOps: Docker, GitHub Actions, AWS, The Graph, IPFS
- Architecture Expertise: Proxy patterns (UUPS, Transparent, Diamond), ZK Circuits (Circom, SnarkJS)

#### WORK EXPERIENCE

#### **Senior Smart Contract Engineer**

SpaceDev — Memphis, TN | Apr 2023 - Present

 Spearheaded the end-to-end design and deployment of a multichain staking platform, incorporating real-time token rewards, dynamic emission curves, and user-specific vesting logic, which scaled to over 75,000 unique users and \$14M in TVL.

- Led the integration of zk-SNARKs for a privacy-preserving airdrop mechanism, implementing Circom circuits and Groth16 proofs, resulting in 98% claim completion without revealing user wallet activity or transaction history.
- Refined contract logic using modular Diamond proxy architecture (EIP-2535) to enable seamless contract
  upgrades across facets, cutting upgrade time by 60% and minimizing deployment risks by ensuring backward
  compatibility.
- Optimized gas usage by implementing inline Yul assembly, custom calldata encoding, and function selector
  packing, resulting in an average reduction of gas costs by 43% per transaction and a smoother user experience
  during high-traffic periods.
- Collaborated closely with the security team during smart contract audits by Trail of Bits and Hacken, personally
  addressing and resolving 40+ findings, including gas inefficiencies and edge cases, ensuring the protocol's
  production readiness with no major vulnerabilities.
- Mentored and onboarded 4 junior engineers, significantly improving their understanding of smart contract development and zk integrations, and boosting team efficiency and delivery timelines by reducing onboarding time by 50%.
- Developed and deployed off-chain indexing solutions using The Graph to track protocol events and user interactions, empowering product teams to build richer analytics dashboards and monitor real-time system activity.

#### **Smart Contract Developer**

A3Logics — Remote | Dec 2020 – Mar 2023

- Designed and deployed a multi-functional DeFi system, which included staking pools, automated token vesting, and on-chain governance contracts, resulting in 30,000 DAUs and successfully handling over 10 million transactions without critical downtime.
- Created and deployed a zkSync-integrated token vesting mechanism that leveraged zk-SNARKs for off-chain data verification, processing 1 million transactions with zero slippage and 99.98% execution accuracy, ensuring security and privacy for users.
- Led the migration of legacy ERC-20 tokens and ERC-721 NFTs to zkSync and Optimism L2 networks, improving transaction throughput by 4x and reducing gas fees by 85% for users interacting with high-volume DeFi protocols.
- Developed custom Hardhat deployment scripts to automate governance contract upgrades across Ethereum,
   Polygon, Arbitrum, and Optimism, reducing deployment time by 80% and making upgrades safer and more consistent.

- Conducted in-depth security audits for all deployed contracts, performing fuzz testing, static analysis with Slither, and custom vulnerability checks, ensuring that the platform passed third-party audits with zero major findings.
- Built and maintained a multi-chain API system that connected to on-chain protocols via Ethers.js, providing realtime contract interactions for users, increasing engagement by 50% during the first quarter post-launch.
- Spearheaded internal workshops on Solidity best practices, focusing on security patterns, event handling, and
  gas optimization, resulting in a more uniform development process and enhanced coding standards across
  teams.

#### **Software Engineer**

Lattice — Remote | Jul 2018 - Nov 2020

- Designed and implemented decentralized identity verification systems for fintech and regtech clients using Solidity-based DID contracts, enabling these clients to meet KYC/AML compliance standards while maintaining on-chain privacy guarantees.
- Led the development of a modular Ethereum-compatible backend, interacting with smart contracts via Web3.js and Ethers.js, enabling high-frequency transaction systems to process more than 50,000 requests per day with minimal latency.
- Built a backend caching layer using Redis and PostgreSQL replication, reducing read/write performance time by
   250% and enabling the system to scale efficiently during peak transaction periods.
- Developed real-time monitoring tools for contract state synchronization, allowing backend systems to react
  instantly to changes in smart contract states and provide users with immediate feedback, reducing customer
  queries by 35%.
- Implemented Docker-based CI/CD pipelines, integrating GitHub Actions to ensure fast, reliable contract testing, deployment, and rollback functionality across staging and production environments.
- Contributed to the frontend team by developing React-based dashboards for non-technical clients, reducing support tickets by 65% and providing self-service tools to increase user satisfaction and onboarding rates.
- Collaborated with security teams to implement advanced static analysis tools like MythX and Slither, helping identify potential vulnerabilities and significantly improving the overall contract security posture.

## **EDUCATION**

### **University of Memphis**

Bachelor's Degree in Information Technology