Edmundo Arias Ortiz
Smart Contract Developer & Auditor

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Professional Summary

Dedicated to safeguarding against vulnerabilities at every step, embracing challenges where security is a core principle, with a background in software engineering. My work currently is all about building secure and efficient blockchain solutions, and I approach each project with a strong focus on detail and reliability.

Work Experience

1Cademy (Blockchain Community) Honor Education • MI, U.S   jan 2024 - sept 2024
Blockchain Developer

Creating educational content that focused on the fundamentals and advanced concepts of blockchain, with a specific emphasis on Ethereum for 1Cademy Blockchain Pathway.

- *Explored:* Consensus mechanism, network protocols, and infrastructure.
- *Presented:* An in-depth exploration of the Ethereum Virtual Machine (EVM).
- *Introduced:* Best practices for testing, auditing, manual code reviews and automated tools.
- *Taught:* Optimizations of EVM assembly language.

1Cademy - Honor Education • MI, U.S   aug 2022 - dec 2023
Software Engineer

Designed and architected a knowledge database, to simplify learning complex scientific information by dividing it into micro-content, over an infinite directional graph, where each node represents a discrete unit of knowledge.

- *Knowledge Graph Architecture:* Engineered a scalable and dynamic knowledge graph, organizing a structured progression from foundational 'parent' concepts to advanced 'child' topics.
- *Automated Learning Pathways:* Generation of pathways to optimize learning and teaching.
- *Real-Time Node Interaction*: Developed features for (editing, linking, submitting etc.) with an optimistic UI approach.
- *Leaderboard*: Design a model ranking for community activity stats.

Challenges & Solutions:

- *High Volume Rendering:* Applied memoization to reduce re-renders, web workers to compute real-time node positions, and also implement custom Rust-based WASM graph-drawer.
- *Real-time Synchronization:* Leveraged Firebase snapshots for seamless updates across shared graphs.
- *Graph Navigation:* Implemented "Scroll to Node" functionality to help users navigate across the graph.
- *Real Time Tutorial:* Inject an interactive tutorial in the graph, which leads users across each graph element while teaching them how to use all graph features.

Skills

Analytical Thinking: Strong analytical skills with an approach to identifying, tracing and resolving complex issues (transactions, external calls, call delegation etc.).
Adaptability and Continuous Learning: Adaptable to protocols and committed to ongoing professional growth, staying current with evolving blockchain standards and innovations.
Collaboration: Engaged into team collaboration for concept, vulnerability and problem solving.
DAPP: Solidity, Yul, Foundry, Typescript, Hardhat, Certora, Halmos, Slither and Aderyn
Frontend: Nextjs, Wagmi, Viem, Wallet Connect, Alchemy RPC.

Education

University of San Antonio Abad • Cuz, P.E   aug 2014 - april 2020
School of Information and Systems
Bachelor of Engineering in Computer and Systems Engineering

Certifications
- Ethereum.Org Blockchain Developer
- Cyfrin Updraft Security Essentials
- Alchemy University - Blockchain Development