Prince Israel

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Research Ops and Programs lead - SVM, Research Engineer

Results-driven research professional with a proven track record in protocol research engineering, research training and research operations. Adept at leading cross-functional teams, developing research strategies and mentoring talent dedicated to advancing high-performance distributed protocols through rigorous research, optimization, and profiling to deliver high impact outcomes. Skilled in optimizing research workflows, implementing scalable training programs and aligning research initiatives with organizational goals. Known for transforming complex research initiatives into actionable plans in measurable results. A key contributor to blockchain ecosystem growth via cutting-edge research, SDK design, Compiler/runtime engineering, distributed system designs and in-depth technical reports.

Skills

Research & Development, Technical Documentation, Rust (Proficient), Statistical Analysis, Solana SVM, Anchor, MERN stack, Benchmark Testing, Data Analysis, SDK and API development, Distributed Systems, Python, Cryptography, Technical Reports, Workflow Optimization, Team Leadership & Mentorship, Resource Management, Data Analytics, JavaScript, TypeScript, Protocol Research, Systems Design

Experience

Research Operations & Programs Lead

3uild Ethos/ Turbin3 06/2025 - Present

SVM Research Engineer/TA

3uild Ethos/Turbin3 03/2025 - Present

Developer Advocate

Solana Foundation 01/2025 - Present

Software Engineer-Technical Development Mentor

Moringa School 05/2023 - 09/2024

MERN Stack Software Engineer

Independent Software Inc 07/2020 - 03/2023

Education

Physics

Federal University of Technology, Owerri • Nigeria 02/2017

Key Projects

1. Protocol Research: Comparative Analysis Winner- <u>Solana vs The World</u> (C25 Research Challenge, Heliuslabs track, Superteam & Solana Foundation)

- Published an indepth research and design analysis of Solana and Sui transaction lifecycles, focusing on execution models, pipelines design, parallelism and scalability trade-offs.
- Selected as top submission by core engineers and recognized for clarity, precision and protocol-level insights.
- 2. Co-ordinated and delivered technical workshops on Solana transaction Journey through the protocol as part of Solana Service Initiatives
- 3. Managed a team of Protocol researchers and engineers to design an interactive Agave site map
- 4. Authored a comprehensive research and systems design "Engineering Solana" book for core SVM engineers, protocol engineers and performance engineers and research engineers (WIP)
 - Provide a research focused "embedded" engineering overview into the SVM, AccountsDB, TPU, and TVU including benchmark and profiling techniques.
- 5. Research on impact of Vote mods on chain operations Research Report
 - An extensive collaborative research with expert researchers on Solana on the negative impact of vote modifications on healthy chain operations, with potential implications of a chain halt
- 6. Benchmark Research on Solana core Github repo
 - Researching the impact varying loads of packet data have on throughput and latency on the banking stage, transaction scheduler and the snapshot packaging service
- 7. MongoDB-based Solana Geyser Plugin (In Progress) Github repo

A plugin to enable efficient indexing and querying of Solana blockchain data using MongoDB.

- Engineered a high-performance plugin to support real-time data ingestion from Solana nodes.
- Designed and implemented scalable database schemas optimized for querying transaction, block, and account data.
- Incorporated advanced indexing techniques to enhance query performance for developer analytics and dApp integration.
- 8. Orishare Github repo

A MERN application that enables users to share tourist location and images.

- Built robust front-end components and integrated RESTful APIs to ensure a seamless user experience.
- 9. Wager Markets Github repo

A prediction game built on solana for Web3 sport enthusiast to wager on the outcome of their favorite sport events with dynamic odds.

- Designed smart contracts to create events, wagers and predict outcomes.
- Designed smart contracts with Anchor to manage dynamic odds and automated payouts.
- 10. NFT Marketplace Github repo

A decentralized NFT marketplace using Anchor, empowering users to list, delist, and purchase NFTs

11. Amigo Github repo

A web application that enables exercise enthusiasts to track live locations, logs workouts, and marks them on a map, storing data locally

• Integrated geolocation APIs for seamless frontend location tracking functionality

Achievement & Publications

Authored technical insights and edge-cutting reports on Solana development and blockchain design, gaining recognition within the developer community. Examples include:

- At The Edge of Determinism: Transaction Lifecycle in Solana Sealevel and Sui Object Runtime
- Advancement in Post-Quantum SVM: Review on Cryptographic Resistance to Quantum Computing Attacks on Solana blockchain

- Introduction to Solana: A fledging's guide on Web3 development on Solana
- Cross-Program Invocations and PDAs- the combination of two powerful mechanism on Anchor
- Improving IDLs Discoverability: Accelerating Solana Development, Integration and Composability
- <u>A Developer's Guide into Account Abstraction Models</u>

Authored relevant research and academic papers on quantum-focused SVM and its impact.

Built a MongoDB-based Solana Geyser plugin to improve data indexing and querying for developers.

Curator and active contributor on Solana stack exchange

Training Programs & Certification

Bridge to Turbin3 Bootcamp, Turbin3 Builders Program, Turbin3 Advanced Rust For SVM, Turbin3 Research

Languages

English, American Sign Language