

Alex Rosano

Staff Software Engineer | AI Platform & Distributed Systems Architect

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Atlanta/ Hybrid Flexibility

Engineering leader with 18+ years of experience architecting and operating large-scale production systems serving millions of users. Proven track record of owning complex technical problems end-to-end, from initial architectural design to production release. Expert in TypeScript, Mobile, and backend systems. Deep experience navigating cloud-native environments and driving high-impact technical strategy across multi-disciplinary teams.

ENGINEERING PILLARS

Radical Transparency: Foster trust through clear communication of strategy, metrics and risks

Build Systems, Not Heroes: Design resilient architectures that reduce single points of failure

Always “We”: Champion shared ownership, cross-functional collaboration, and collective accountability

SKILLS

AI/ML: Multi-agent orchestration, agentic workflows, prompt engineering, model evaluation

Languages & Frameworks: TypeScript, JavaScript, Python, Kotlin, Swift, C#, C++, PHP, React / React Native, Node, Express, Next.js

Data & Infrastructure: PostgreSQL, MySQL, Kafka, AWS, Docker, GraphQL Apollo, CI/CD, Monorepos, SSR

EXPERIENCE

Fault-Tolerant Multi-Agent Orchestration System | May 2025 – June 2026

Software Initiative | Personal Project

- Designed a fault-tolerant multi-agent orchestration system with strict separation of strategy, validation, execution, and capital control—all agents fully isolated with immutable message-passing
- Implemented governance and risk agents with veto power for real-time safety enforcement; designed red-team validation agents for stress testing and failure discovery
- Created a perception layer for data conditioning and regime classification, feeding parallel strategy agents producing scored, immutable artifacts
- Engineered an execution layer controlling slippage, exposure, and risk with sub-second latency
- Tech: PostgreSQL, Kafka, WebSockets, Python, React, TypeScript, LangChain

Warner Bros. Discovery – Staff Software Engineer / Technical Lead | Mar 2011 – Feb 2025 | Atlanta, GA

Bleacher Report (Warner Bros. Discovery) – Staff Software Engineer

- Defined the architectural vision for Bleacher Report, supporting large-scale consumer traffic and millions of users / requests per second
- Architected and lead development of multi-platform mobile app for Android and iOS
- Developed OAuth service for desktop and mobile clients
- Built two GraphQL subgraphs used for scores and user management
- Tech: Apollo Server, GraphQL, Node, TypeScript, React, Docker, Kafka, AWS, Apollo Client, PostgreSQL, React, React Native, Expo, Kotlin, Swift

Estadio TNT Sports (Warner Bros. Discovery) – Staff Software Engineer

- Architected a reusable multi-platform system supporting eight platforms from a single codebase (Samsung TV, LG TV, Fire TV, Xbox, Desktop, Android, iOS, Apple TV)
- Established engineering standards, review practices, and delivery processes across teams
- Mentored senior engineers, influencing architectural decision-making and long-term maintainability
- Mentored and led frontend and backend teams for project lifecycle
- Tech: Apollo Server, GraphQL, Apollo Client, React, React Native, TypeScript, Node, Docker, AWS, Kotlin

NBA Digital (Warner Bros. Discovery) – Staff Software Engineer

- Drove platform-wide improvements using Next.js SSR, resulting in faster page loads and improved user experience
- Developed a highly optimized multi-view algorithm and video player capable of managing four concurrent video streams, multiple analytics platforms, and audio for NBA League Pass
- Drove modernization initiatives (unit testing, React, React Native)
- Hired and managed frontend and backend engineers for various NBA initiatives
- Tech: Express, React, TypeScript, Node, AWS, Serverless, Next.js, React Native

March Madness Live (Warner Bros. Discovery) – Senior Engineer

- Designed a cross-platform (single codebase) system for Xbox, Fire TV, Android TV
- Created a custom hardware router solution to accelerate local development and testing across devices
- Built a library for cross-device TV remote control management used company-wide
- Built a state management library based on Apollo Client's reactive variables
- Tech: GraphQL, React, TypeScript, C#, Apollo Client, GraphQL

TVE Portal, In-House Video Player (Warner Bros. Discovery) - Senior Developer

- Designed and built a TVE Client Portal used by over 600 cable providers to manage branding assets
- Co-developed a custom in-house video player adopted across CNN, TNT, TBS, and Cartoon Network
- Tech: Drupal, PHP, Java, AWS, JavaScript, Flash

OPEN-SOURCE PROJECTS

lane-x → <https://github.com/rosano-alex/lane-x>

High-performance reactive runtime for TypeScript (Claude AI Used for comments, Unit Testing, and scaffolding)

typed-fsm → <https://github.com/rosano-alex/typed-fsm>

Type-safe Finite State Machine library for TypeScript

EDUCATION

Southern Adventist University

Computer Science, Broadcast Journalism