Andrei Popa, Software Architect | Full-Stack Engineer

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LINKS

LinkedIn, Github

PROFILE

- Experienced full-stack engineer with 12+ years building robust, scalable apps. As Tech Lead at Hypercent, helped raise $3M; later supported Kin's $4M round.
- Skilled at building MVPs, strong foundations, validating ideas, and solving complex, constrained problems.
- Advocate for Local-First architectures and decentralized identity
- Consulting for the Romanian Government, addressing challenges of strategic importance.
- Certified in Offensive Security with a notable history as a teen hacker.
- Passionate about Open Source Intelligence (OSINT) and Knowledge Graphs.
- Skilled in building scalable, robust, and secure systems and applications from the ground up, adhering to the highest quality standards.
- Skilled in software architecture, system engineering, data modeling, development processes, business requirements, and the latest technologies and stacks.
- Holds a strong distaste for nonsense and a high respect for genuine hackers.
- Featured as a guest on Romanian National Television, discussing intelligence, security, and AI.
- Experienced in building not only applications but also teams and businesses.
- Actively exploring the latest protocols, patterns, and software paradigms with a discerning perspective.
- Confident in tackling any challenge. Able to solve any problem or learn any language or framework, viewing solutions as a function of time, skill, and passion. Leveraging LLMs for enhanced capabilities.

  Key Skills & Domains:
- Frontend: ReactJS, NextJS
- Backend: NodeJS, NestJS
- Mobile: React Native / Expo
- DevOps & Infra: Docker, Kubernetes, CI/CD pipelines, Terraform, Ansible
- Blockchain & Decentralized Identity: Solidity, DID / VC
- Security & Pentesting: Offensive Security Certified
- AI & Data: LLM fine-tuning, agent orchestration, ETL pipelines, RAG systems, knowledge graphs, OSINT tooling

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EMPLOYMENT HISTORY

Jul 2024 — Present

Fullstack Engineer, Garden Computing, Inc.

Jazz.tools is an open-source TypeScript toolkit for building apps with distributed state, making local-first applications mainstream. Jazz.tools simplifies 90% of traditional app stack while providing local-first storage, cross-device sync, real-time multiplayer, and end-to-end encryption.

Highlights:

- Enhanced core library functionality and performance across distributed state management, improving reliability and developer experience for the open-source community.
- Developed create-jazz-app CLI tool for streamlined project scaffolding across environments, libraries, and auth methods.
- Implemented Jazz framework bindings for Vue.js and React Native + Expo, expanding platform compatibility and ecosystem adoption.
- Built Metamask authentication system enabling Web3 wallet-based onboarding and decentralized identity management.
- Designed multiple storage adapter architectures supporting various persistence backends for flexible deployment scenarios.
- Delivered critical improvements and bug fixes across monorepo, maintaining code quality and stability.
- Created official example apps and starter templates for multiple platforms, providing production-ready reference implementations.
- Architected a production-ready Linear clone demonstrating Jazz's real-time collaborative capabilities and complex state patterns.
- Implemented agentic AI workflows for automated code generation, streamlining development and improving productivity.
- Contributed to key company apps: user dashboard, Waffle (Discord clone), and Inspector (debugging tool).

- Enhanced CI/CD with Vercel optimizations, Nomad deployments, and backup systems for improved reliability.
- Conducted R&D: React Native passkeys in WebViews, AI agents, and MCP server implementation.
- Provided technical support to community and enterprise clients, fostering ecosystem growth.
- Authored technical documentation and developer guides, improving onboarding and reducing support overhead.

May 2023 — Jul 2024

Senior Architect & Lead Engineer, Hyphen

Copenhagen, Denmark

Kin is a personal AI designed to enhance private life. Joined the team as the 2nd employee and contributed significantly to its growth. Kin successfully raised $1M from the Danish Government and $3M from cyber.fund. The platform has attracted 13k total user signups, with 5k onboarded via Testflight, generating over 300k messages.

Main Architectural Features:

- Local-first
- Private
- Multi-platform
- on-device AI inference

Highlights:

- Involved in all engineering aspects of the app, from R&D, to deployment and monitoring.
- Built a robust codebase with a focus on Developer Experience (DX) and best practices.
- Established CI/CD workflows using GitHub Actions and EAS Build for our mobile app and libraries.
- Developed an on-device inference service using local AI models, ONNX and Transformers.js for vector embeddings and speech-to-text.
- Created and published an Expo module (Swift + Kotlin) for audio playback, utilized for text-to-speech.
- Developed an Expo module (Swift + Kotlin) as a wrapper around CozoDB, used for storing vector embeddings.
- Published an abstract-level implementation of AsyncStorage for React Native using TypeScript.
- Packaged our core capabilities as an isomorphic JS SDK, consumed by clients in various environments (react-native, nodejs, web).
- Implemented AI agent patterns like ReAct, CoT, RAG, using LangChain.js or plain TS.
- Developed AI agents for various tasks including triplets extraction, reasoning, tool usage or search.
- Contributed to open-source projects from our stack, either with bug reports, bug fixes, or new features, helping us move forward
- Delivered various UX & performance optimisations
- Set up observability and instrumentation using OpenTelemetry and Grafana.
- Built lots of POCs for various technologies and scenarios, to figure out our next steps.
- Researched and leveraged Decentralized Identifiers (DIDs), Decentralized Web Nodes (DWN), and Trusted Execution Environments (TEE).

Dec 2021 — May 2023

Technical Lead, Hypercent

Bucharest, Romania

Hypercent is the largest launchpad on the Kadena blockchain, enabling startups to raise over $3M through our crypto crowdfunding platform.

Highlights:

- Developed the infrastructure and hosted the official Kadena node.
- Leveraged Hasura to provide external access to chain data via GraphQL.
- Launched Hypercent's official crypto wallet
- Authored smart contracts to implement business logic.
- Contributed to Kadena's open-source community by publishing my research on zk proofs
- Built backend services to interact with the smart contracts.
- Developed the crowdfunding platform
- Maintained a robust monorepo hosting our wallet, website, backend, libraries, and tools.
- Developed various tools to enhance the productivity of the marketing & engineering teams.
- Led a team of 4 developers to achieve business objectives.

Tech Stack: TypeScript, NestJS, NextJS, Pact-lang

Sep 2020 — Dec 2021

Senior Fullstack Engineer, Qualitest

Bucharest, Romania

Qualitest is a leader in software outsourcing, catering to the needs of prominent clients such as Elbit Systems and Cellebrite.

Highlights:

- Developed various features for a cyber intelligence platform.

- Developed a Docker container orchestration and monitoring tool, providing the platform with 100% control and visibility into its processes.
- Successfully delivered a complex reporting system for operational and system data, aiding shareholders in making better decisions.

Tech Stack: TypeScript, AngularJS, NestJS, Docker

Aug 2020 — Mar 2021

Tech Consultant, Asociația pentru Tehnologii Avansate

Bucharest, Romania

Successfully launched the national system for monitoring and surveillance of fiscal data collected from all cash registers (from all stores) in Romania.

Tech Stack: Go, RabbitMQ, Kubernetes (k8s), React

Dec 2019 — Aug 2020

San Diego, California, United States

Senior Javascript Engineer, Genesis Digital, LLC

Genesis offers two premier products:

- Kartra: An industry-leading marketing SaaS that integrates Customer, Email, Video, Affiliates, Pages, Campaigns, and Shopping Cart management into a single suite.
- WebinarJam: "The most dramatic improvement to Live Casting, Event Streaming, and Webinar Broadcasting ever released to the public."

Highlights:

- Enhanced the features and usability of Kartra's no-code web page builder, benefiting over 100k users.
- Successfully reduced the loading time for more than 500k web pages by at least 1 second.
- Implemented and improved various features for WebinarJam.

Tech Stack: ES6, VueJS

Feb 2018 — Dec 2019

Frontend Engineer, 888Sparkware

Bucharest, Romania

888 is an international sports betting and gambling company.

Highlights:

- Enhanced the features and usability of 888's main poker game.
- Successfully developed a modern web poker game from scratch, providing the company with a competitive edge.
- Designed the app's architecture based on product requirements.
- Translated designs into React components.
- Conducted R&D and created various POCs to determine the best technical approaches.

Tech Stack: TypeScript, ReactJS, Redux, KonvaJS, AnimeJS, Styled-components

Mar 2019 — Oct 2019

Full Stack Engineer, TailPath

TailPath is a B2B SaaS supply chain management platform that facilitates the blockchain pairing of data assets with physical products.

Highlights:

- Managed and extended the existing admin panel and API written in PHP.
- Rewrote parts of the API in NodeJS for improved performance and scalability.
- Developed the core business idea by creating a system for pairing data assets with blockchain transactions.
- Successfully developed and implemented an access control system used in NATO's largest medical exercise in history.
- Created and launched a blockchain-powered clothing donation mobile app, which was spotlighted by the UK Embassy in Bucharest.

Tech Stack: React Native, NodeJS, PHP, Solidity

Jan 2017 — Jan 2018

Frontend Engineer, Findie

Bucharest, Romania

Findie is a London-based startup specializing in generating ideal video summaries from full-length videos.

Highlights:

- Developed new features and enhanced the usability of the white-label video platform.
- Successfully delivered custom features for premium clients such as L'Oreal New York and MotoGP.

Tech Stack: React, Reflux, SASS, NodeJS

EDUCATION

Jan 2011 — Jan 2013   **Bachelor's degree in Informatics, University POLITEHNICA of Bucharest**

Dropout

EXTRA-CURRICULAR ACTIVITIES

Aug 2017 — Oct 2017   **Lecturer, Center for Advanced Strategies**

The Center for Advanced Strategies is a Romanian think-tank specializing in training on intelligence, security, and geopolitics. Delivered lectures on cybersecurity and OSINT.

May 2020 — Mar 2021   **Consultant, Asociația pentru Tehnologii Avansate**

The Association for Advanced Technologies is a Romanian NGO dedicated to addressing some of Romania's most significant challenges.Contributions:- Provided tech consultancy for various public institutions.

LANGUAGES	Romanian	Native speaker	English	Highly proficient