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| Andrei Popa, Software Architect | Full-Stack EngineerBucharest, Romania, Bucharest, Romania, +40 735 651 608, andrei@fastmail.com |
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| LINKS | [LinkedIn](https://linkedin.com/in/pax-x), [Github](https://github.com/pax-k/) |
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| 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.
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| 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).
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| 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 | Senior Javascript Engineer, Genesis Digital, LLC | San Diego, California, United States |
| 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  |
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| EDUCATION |
| Jan 2011 — Jan 2013 | Bachelor's degree in Informatics, University POLITEHNICA of Bucharest |  |
| Dropout  |
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| 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.  |
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| LANGUAGES | Romanian | Native speaker |  | English | Highly proficient |