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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. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | 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 | | | | | | | | | | | |