Pavel Anpin, 1992

Full-Stack Technologist | IoT Infra by Day, Generative Visuals by Night

From F# backends and Nix-based deployments to glitchy feedback loops — one state machine at a time.

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SUMMARY

Innovative and adaptable technical founder with deep experience across software engineering, smart building systems, and audiovisual technologies. I bring a practical mindset to solving complex problems — from building scalable, self-hosted platforms to integrating creative and embedded systems in real-world environments.

Passionate about functional programming, reproducibility, and distributed architectures. I thrive in collaborative settings where technical depth meets human-centered design. Always open to new challenges — whether consulting, partnering on ambitious ideas, or supporting teams that value thoughtful engineering.

In my spare time, I enjoy cycling, baking, exploring generative visuals, and reflecting on the nature of consciousness.

WORK EXPERIENCE

Alerio

Technical Founder | Dec 2022 - Present

Co-founded a smart-building software startup specializing in incident prevention, energy usage tracking, cost minimization, and enhanced satisfaction for teams and clients. Developed robust software solutions including intuitive dashboards, proactive monitoring, automated energy management systems, and comprehensive analytics. Managed client deployments, backend services, and provided direct technical support. Employed modern technologies (NixOS, TimescaleDB, F#, Akka.Net, Giraffe, HTMX, DaisyUI) within a fully self-hosted,

declarative NixOS infrastructure (OpenResty/nginx, Authentik, Attic, Forgejo, PostgreSQL, Clickhouse, Grafana/Mimir/Loki, Minio, Plausible, restic).

Independent Contractor

Dec 2016 - Present

Provided expert consulting services and bespoke software solutions across diverse industries, specializing in audiovisual installations, automation systems, and full-stack application development. Delivered and maintained cross-platform apps built with Xamarin.Forms and ASP.NET, transitioning them smoothly to MAUI/Avalonia with ASP.NET Core, while ensuring robust CI/CD practices and comprehensive testing. Transitioned client systems from C# to functional programming using F# and modern frameworks (Akka.Net, Giraffe, Avalonia), significantly enhancing maintainability and efficiency. Mastered a wide array of technologies including C#, F#, Fable, NixOS, Rust (embedded), PostgreSQL/TimescaleDB, Event Sourcing, CQRS, WebRTC, Astro, and advanced multimedia frameworks, demonstrating adaptability in tackling complex technical challenges.

IMS Group Ltd

Chief Engineer | Jun 2016 - Sep 2017 (1 yr 4 mos)

Led engineering workflow development, provided team training, and supervised project execution for a systems integrator serving the hospitality industry. Managed comprehensive project lifecycles from design through installation and client handover, specializing in advanced audiovisual systems integration to ensure high-quality results and client satisfaction.

AudioVideoSystems Ltd

Project Engineer | Dec 2015 - May 2016 (6 mos)

Provided pre-sales engineering support, coordinating audiovisual projects and liaising closely with clients and contractors. Supported project teams through technical consultations and structured client communication, managing challenging project scenarios effectively.

8 Ohm Ltd

Project Engineer | Aug 2013 - Nov 2015 (2 yrs 4 mos)

Advanced from intern to project engineer, specializing in the design, programming, and commissioning of tailored audiovisual solutions. Directly communicated with clients and contractors, delivering reliable installations and

comprehensive post-installation training. Demonstrated adaptability, technical skill, and strong commitment to delivering solutions customized to meet diverse client requirements.

Open Source Contributions

- Maintainer of multiple nixos/nixpkgs packages and modules, improving reproducibility and developer tooling.
- Created a popular context menu plugin for Xamarin.Forms with >50 GitHub stars and several thousand NuGet downloads.
- Developed and maintained CI/CD pipelines for the Perfect-Fifth project. Contributed to reviving and stabilizing tweag/jupyenv, enabling better Nix-based Jupyter environments.
- Helped resolve crashes in the Akkling F# library after upstream package updates, supporting its continued use in production Akka.NET applications.

Community Engagement

- Contributed to Budka Tbilisi, a community-driven artist-run space supporting cultural events, exhibitions, and experimental performances. Assisted with technical infrastructure and event production.
- Participated in open calls and discussions hosted by scanlines.xyz, contributing experimental video works and exploring community-driven media arts. Explored feedback-based generative audio visual works using vvvv, focusing on emergent forms and cybernetic aesthetics in audiovisual performance contexts.

EDUCATION

Siberian State University of Telecommunications and Information Science

Engineer's degree, Audio Visual Technologies | Sep 2009 - Jun 2014 (5 yrs)

Graduation Work: Project of audiovisual complex for universal hall in the hotel "Hermitage" in the city of Yekaterinburg