

Petr Konstantinov

CTO & Co-Founder | Head of R&D | Principal Engineer

// EXECUTIVE SUMMARY

Technological Co-Founder and CTO with 15+ years of experience building EdTech, hardware, and video technology products from concept to global scale. Led Jalinga's evolution from a hardware prototype to a SaaS + hardware ecosystem deployed in 450+ interactive studios across MENA, Europe and the Americas.

Expert in bridging hardware (embedded systems) and software (cloud, real-time video). Proven track record of designing and deploying production-grade applied AI/LLM systems, including custom agentic architectures, complex RAG pipelines, and local inference optimization. Adept at aligning deep technical R&D with overarching business goals.

// PROFESSIONAL EXPERIENCE

Jalinga

2015 – Present

CTO & Co-Founder

Global EdTech company developing interactive video studios and glass-board technology.

LEADERSHIP & STRATEGY

- 01 Co-founded the company and defined the technology roadmap, transforming a hardware prototype into a global SaaS + hardware business with 450+ studios deployed across multiple countries.
- 02 Built the R&D organization from a solo developer into a cross-functional team of 10+ senior engineers and product managers, fostering a culture of ownership and near-zero turnover.
- 03 Led technical expansion into MENA and EU markets, supporting enterprise and university customers.
- 04 Implemented structured Agile processes and automated QA, achieving predictable release cycles and consistent quarterly roadmap delivery.

ENGINEERING & ARCHITECTURE

- 05 Designed and delivered a proprietary GPU-accelerated real-time video compositing engine enabling natural "teacher + content" interaction with sub-second latency and zero dropped frames.
- 06 Architected and launched the cloud platform [jalinga.cloud](#) for content management and AI-assisted presentation creation, creating a recurring SaaS revenue stream and improving reliability for distributed customers.
- 07 Built a WebRTC-based virtual classroom platform with a service mesh architecture, supporting large-scale concurrent sessions and resolving critical load and scalability issues.

Movicom

2009 – 2015

Head of Electronics Dept. / Lead Engineer

Robotic cameras for broadcast.

- 01 Developed hardware and firmware for stabilized camera heads and Robycam cable camera systems used at major sports events (Olympic Games, FIFA World Cup) under strict broadcast reliability and safety requirements.
- 02 Managed a team of electronics engineers, overseeing PCB design, embedded firmware (C/C++), and multi-axis motor control algorithms for robotic camera systems.

03 Delivered high-reliability platforms operating in harsh outdoor environments with millisecond-precision control, supporting numerous live broadcasts without critical failures.

// INDEPENDENT PROJECTS

whatic.io Live

2026 – Present

Independent AI Initiative · In production

An applied AI assistant for hardware engineers that recommends components backed by verifiable datasheet evidence. Built and deployed end-to-end to solve complex domain-specific retrieval and automation challenges.

- 01 Engineered a robust data ingestion pipeline for processing complex PDF layouts (IC datasheets) into structured, citation-ready formats.
- 02 Designed an agentic orchestrator over deterministic tool backends (vector semantic-search RAG, engineering calculators) that grounds every output in verifiable sources, sharply reducing hallucinations.
- 03 Deployed a cost-optimized, reproducible infrastructure for local open-weight LLM inference (vLLM, GGUF) on a single spot GPU without compromising privacy.
- 04 Established a rigorous, benchmark-driven evaluation harness for the entire AI lifecycle, selecting models and retrieval methods based on measured agent-loop reliability rather than intuition.

// CORE COMPETENCIES

Leadership & Strategy

R&D strategy, hands-on architecture, team management, Agile, SDLC, hiring & mentoring, stakeholder management.

Architecture & Cloud

Event-driven architecture, service mesh, REST API design, AWS, DigitalOcean, Terraform, Ansible, Docker, GitLab CI/CD.

AI & LLM Engineering

Agentic orchestration & tool-calling, retrieval-augmented generation (vector semantic search), local LLM inference & optimization (vLLM, GGUF quantization), multimodal document extraction & ingestion, experiment-driven evaluation & benchmarking, open-weight models.

Video & Hardware

WebRTC, GPU acceleration (Direct 3D/NVENC), real-time compositing, embedded systems, touch-interface drivers.

Backend, Frontend & Security

Python, C#, TypeScript, C, .NET.
Security & Compliance: Data privacy, security reviews & audits.

// EDUCATION

Bauman Moscow State Technical University (BMSTU)

Master’s Degree in Electronics Engineering & Technology
Focus: Robotics, Embedded Systems

// LANGUAGES

English

Advanced (C1)

Russian

Native