

Nikita Kapitonov

Full-stack AI Product Engineer

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MIPT-trained spacecraft control engineer. Two decades building HVAC controllers, monitoring and remote-control products. Now shipping **AI-powered applications** that turn messy real-world signals into decisions.

20+ years in HVAC product engineering	3,000 telemetry readings per minute through my monitoring server	~100 support requests a day handled by my AI agent, per typical client	2014 → 2026 my controller designs are still backward compatible
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Sense. Reason. Act.

01 — SUMMARY

The through-line of my career is **control systems** — the discipline of sensing a system, reasoning about its state, and acting on it. It started with simulating the ISS alarm-indication dashboard, ran through two decades of HVAC monitoring and remote control, and now lives in AI agents that read messy real-world signals and do something useful with them.

I work end to end: backend telemetry servers, TypeScript / Next.js front ends, native mobile apps, and the product management around them. Lately most of that work is AI-assisted — both building AI products and rewiring how software gets built.

Experience

02 — FLIGHT LOG

Aug 2023 → Present

3 yr 3 mo

NRW, DE

ACTIVE

HVAC Controls Manufacturer / Full Stack Product Engineer

– HVAC remote-control apps for OEM customers

iOS & Android

TypeScript

– High-load monitoring server for telemetry ingestion & retrieval

▲ 3,000 readings/min

Backend

– Smart Monitoring Platform — full-stack solution

Next.js

Product

– AI Smart Data / Product Assistant Agent

Product Engineer

– AI Internal Knowledge Base Assistant Agent

Product Engineer

– AI Customer Support Assistant Agent

▲ ~100 requests/day per typical client

Product Engineer

– OEM HVAC project & product management

– AI-assisted development engineering & adoption

– Junior developer mentoring

Nov 2009 → Jun 2023

13 yr 8 mo

Moscow, RU

HydroMONTAGE / Head of Automation & Monitoring

Guiding the company’s products through the market storms:

– Visual configuration tool for a heating controller (2008)

C#

– Monitoring device for heating systems (2009–2016)

▲ units from 2010 still in service

JavaME

– Online monitoring service for heating systems (2010–...)

Product

– Remote-control software for HVAC controllers — web, iOS & Android (2014–2018)

Project

– Family of versatile HVAC controllers (2014–...)

▲ 2014 designs compatible with 2026 devices

Product

– Web app for automatic HVAC project documentation (2012–...)

Product

– Corporate knowledge base (2017–...)

Product

– Built production & customer-support workflows; hiring, team management, procurement and knowledge management

May 2014 → Mar 2016

1 yr 11 mo

Krasnogorsk, RU

Chai-Fai Anticafe / Founder

– Founded and ran a family-friendly, pay-per-minute coworking space — everything included, guests pay only for their time.

Sep 2008 → Sep 2009
1 yr 1 mo
Moscow, RU

IBS / SAP Business Intelligence Consultant

– Integrated the SAP BI module into customer workflows, on projects with Gazprom, Metalloinvest and Sibur-RT (formerly TAIF).

Nov 2006 → Jun 2007
8 mo
Korolyov, RU

RSC Energia / Student Intern

– Built a PC visual simulation of the ISS alarm-indication dashboard. Space systems

Jul 2004 → Sep 2004
3 mo
Moscow, RU

Parallels / C++ Developer Intern

– Developed a Xen driver enabling GPU acceleration for virtualization. C++

Projects

03 — DEPLOYED · LIVE

01 WEB APP

2026 - Present

SmartBot Cloud

Listens to your Telegram chats, extracts decisions, how-tos and important context, and builds a searchable knowledge base — without anyone writing docs.

smartbot.kapitonov.su →

02 WEB APP

2026 - Present

Snow Melting Control

Intelligent snow-melting control system. Automatic snow detection via IP cameras and heating-system control — save energy and prevent icing.

snegotayka.ru →

03 TELEGRAM BOT

May 2025 - Present

Focus To-Do Pomodoro Bot

Track your tasks and time straight from a Telegram interface.

t.me/focus_todo_pomodoro_bot →

04 TELEGRAM BOT

2023 - Present

Teplomonitor HVAC Support Bot

Telegram bot that supports customers by answering questions about a specific family of HVAC controllers.

t.me/teplomonitor_assistant_bot →

Skills & capabilities

04 — SYSTEMS ONBOARD

TOP SKILLS		01 AI Agents	02 AI-Powered Development	03 Product Engineering
CORE STACK	TypeScript · Next.js / React · Node / Backend · iOS & Android · C# · JavaME · C++ · VBA			
AI	AI Agents · AI-Powered Development · Product Engineering · Anthropic Claude · Cursor AI · Prompt Engineering			
PRODUCT & OPS	Product Management · Project Management · IPMA Level D · Team Mentoring · Procurement · Knowledge Management			
DOMAINS	HVAC Control · Telemetry / High-Load · Monitoring Platforms · IoT & Remote Control · SAP BI · Space Systems			
LANGUAGES	Russian Native	English Fluent · C1	German Elementary	

Where it started

05 — EDUCATION

2003 - 2009	Moscow Institute of Physics and Technology (MIPT) Master · Space Physics, Systems Analysis & IT Management One of Russia's most demanding science and engineering institutes — the foundation for a career spent reasoning about complex systems.
IPMA	IPMA Level D / Certified Project Management Associate
TRAINING & COURSES	11 courses · 2007-2008 · project management, requirements, modeling