

Anton Petnitsky

Full-Stack Developer · Python & TypeScript · AI/LLM Integration · Backend Systems

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Minsk, Belarus · Remote Only Russian & Belarusian: Native · English: B1–B2

PROFESSIONAL SUMMARY

Full-stack developer with 2+ years of hands-on experience shipping and operating 18+ projects, including production systems used by real businesses and end users. Built and deployed a commercial delivery platform (Telegram bots + Flutter courier app + FastAPI backend + geospatial routing, live for a business in Uzbekistan) and a self-hosted AI assistant with local LLM inference, voice cloning, and a computer-vision video pipeline. Comfortable across the stack — Python/FastAPI backends, Node.js/NestJS services, Flutter mobile, and embedded C++/ESP32 robotics — with a strong focus on database design, real-time systems, and taking a project from idea through Docker-based deployment to live users. Currently a Robotic Systems student at BNTU.

CORE SKILLS

Languages	Python (primary), TypeScript/JavaScript (Node.js), Dart (Flutter), Java, C++
Backend & APIs	FastAPI, REST APIs, async/await, aiogram 3, Telegraf, NestJS, WebSockets, MTPROTO (GramJS)
AI / LLM	Generative AI & LLM integration (Claude API, local via Ollama), prompt engineering, LoRA fine-tuning, voice cloning (Coqui XTTS-v2), ONNX Runtime, OpenCV, Stockfish
Databases	PostgreSQL, MySQL, Redis, Prisma ORM, BullMQ job queues
DevOps / Infra	Docker & Compose, CI/CD (GitHub Actions: build, test, automated releases), systemd, Linux (Ubuntu 24.04), Git/GitHub, Tailscale, self-hosted deployment
Mobile	Flutter/Dart, Android release builds & signing
Robotics / Embedded	Arduino, ESP32, ROS 2, PID control, sensor fusion, motor control (ESC/BLDC/L298)
Architecture	Microservices, event-driven design, real-time systems, geospatial routing (OSRM)

PROFESSIONAL EXPERIENCE

Full-Stack Developer — Independent & Freelance

June 2024 – Present

Remote

Designed, built, deployed, and maintain 18+ projects end-to-end. 8+ applications actively serving real users; several run 24/7 in production on self-hosted Linux infrastructure.

Safalife — Water Delivery Platform (Freelance / Commercial) · Private repos

Full-stack delivery platform for a live business in Uzbekistan: client & courier Telegram bots, Flutter courier/dispatcher app, FastAPI backend. HMAC-secured GPS order tracking, role-based access, self-hosted OSRM routing across two-country road network. Deployed via Docker Compose with Tailscale-secured API.

Python · FastAPI · aiogram 3 · Flutter/Dart · PostgreSQL · OSRM · Docker Compose · Tailscale

AI Persona Behavioral OS · github.com/Mukller/ai-persona-behavioral-os

Self-hosted AI assistant platform: FastAPI + PostgreSQL backend, Telegram bot interface, token-authenticated analytics dashboard. Local LLM inference (Ollama, hot-swappable models), zero-shot voice cloning (Coqui XTTS-v2), custom LoRA fine-tuning pipeline trained on ~7,600 conversation pairs. Computer-vision video pipeline generating personalized Telegram video messages via background worker + ONNX Runtime. 24/7 under systemd.

Python · FastAPI · PostgreSQL · WebSockets · Ollama · ONNX Runtime · OpenCV · Docker · systemd · pytest

Chess Bot (Telegram) · github.com/Mukller/chess

Full-featured Telegram chess platform with 3 game modes (AI, hot-seat, PvP). Stockfish engine integration, dynamic difficulty, ELO rating system. 100+ daily users, 1,000+ games played.

Python 3.10+ · aiogram 3 · Stockfish · PostgreSQL · AsyncIO

Telegram Birthday Assistant · Private repo

Userbot that reminds about birthdays and sends congratulations on the user's behalf via MTProto (GramJS). 65-template greeting library, Telegram Stars gift sending. Live with 600+ contacts migrated; timezone auto-detected, reminders via Redis/BullMQ job queue.

NestJS 10 · Prisma 5 · PostgreSQL · Redis · BullMQ · Telegraf · GramJS · Docker Compose

ADDITIONAL PROJECTS

- **MiniBoardGames 3.0.0** — 20+ mini-games in one Minecraft plugin (2048, Flappy Bird, Battleship), multiplayer 4–100+ players, persistent leaderboards. *Java, PaperMC, MySQL*
- **Casino Stars Bot** — Telegram slot-machine game monetized via Paid Messages; automated jackpot detection and gift payouts via Telegram Gift API. *Python, aiogram 3.13*
- **Telegram Presence Tracker** — Online/offline monitoring (aiogram bot + Telethon worker), 1s polling with flood-wait backoff. 24/7 on systemd. *Python, PostgreSQL, Redis*
- **TikTok Saver Bot** — Telegram bot for TikTok video/photo/audio downloads; parallel CDN downloads + yt-dlp fallback. 24/7 under systemd. *Python, aiogram 3, yt-dlp*
- **3D Printer Control** — Raspberry Pi stack (OctoPrint + Klipper) + custom Telegram bot, AI print-quality monitoring, smart-plug automation. *Python, OctoPrint*
- **Claude Auto-Continue** — Windows desktop automation (UIA tree traversal) to auto-recover coding-assistant sessions; 3 public releases (v1.0.0–v3.1.0). *Python, Tkinter, UI Automation*
- **AdvancedSpyInventory / HackedServer / DailyStreak** — Minecraft plugins for anti-cheat, inventory monitoring, and activity tracking. *Java, PaperMC, Packet API*
- **Minecraft Server Infrastructure ("Техношилд" / MineLore)** — Velocity proxy + ~150 concurrent players + 10+ plugins + Discord bridge + Bedrock cross-play. *Java, Spigot, Velocity, Geyser*

ROBOTICS & HARDWARE

Arkanoid Robot "Robo Arkasha" — Robofinist 2026

Autonomous robot playing Arkanoid in real-time. PC-side OpenCV pipeline (HSV tracking, Kalman filter) sends ball position over UDP to ESP32 motor controller (BLDC via ESC + dual DC motors).

Python · OpenCV · ESP32 · C++

FIRA Autonomous RC Car · github.com/Mukller/fira-autonomous-rc-car

1:10-scale autonomous RC car for FIRA/RoboCup Autonomous Cars League. ROS 2 package (lane detection, steering/speed control, serial bridge), camera calibration tooling.

ROS 2 · Python · Arduino · C++

Self-Balancing Robot · github.com/Mukller/Balance_robot

Two-wheeled inverted pendulum (ESP32 + MPU6050 + 2× TMC2209 + NEMA17). Custom PID tuning from scratch. Multiple regional/national competition victories; presented at scientific research conferences. 3 GitHub releases.
C++ · Arduino · ESP32

COMPETITIONS & ACHIEVEMENTS

- **JuniorSkills Belarus — 1st Place, "Line Following"** — team CyberLab (Minsk), March 2023
- **Educational Robotics Cup** — regional Robofinist-circuit competition, Minsk Region
- **XII Minsk Open Robot Tournament** — multi-day robotics competition
- **XV Frunzensky District Championship** — represented Gymnasium №39, first round

EDUCATION

Belarusian National Technical University (BNTU)

Faculty of IT & Robotics (ФИТР) · Robotic Systems · 1st-year student
2026 – Present

Gymnasium №39, Minsk — IT-specialized track

Programming school & IT circle. Winner of robotics competitions, programming contests, and scientific conferences.
2015 – 2026

CURRENTLY LEARNING

Go (Golang), Kubernetes, gRPC, Helm, MQTT, GitLab CI/CD, cloud platforms (AWS/Azure/GCP), Django/Flask, SCADA/PLC/HMI fundamentals.

PORTFOLIO STATS

54	8+	100+	5
Repositories	Live deployments	Active users	Languages

SOFT SKILLS

Direct, honest communication with clients and teammates — clear about scope, timelines, and problems as they come up. Comfortable working remotely across time zones and picking up new tools or domains quickly when a project needs it.

AVAILABLE FOR

Remote positions: Full-time · Contract · Freelance | **Timezone:** UTC/EET (flexible) | **Start:** Immediate
Preferred roles: Backend Engineer · Full-Stack Developer · AI/Bot Developer · Junior Software Engineer