Viktor Vokh

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Warsaw, Poland | **Right to Work in Poland (No Work Permit Required)**

Summary

Backend and systems-focused Computer Science student who ships end-to-end software and runs it on real infrastructure using Go, Python, PostgreSQL, Redis, and Docker. Built a self-hosted tunnelling daemon with its own binary control protocol and a live map of the Polish railway network, and led a five-person team to 1st place at the Day One Ukraine Hackathon.

Education

Polish-Japanese Academy of Information Technology (PJATK), Warsaw **Oct 2025 - Feb 2029**
BSc Computer Science | **English Track (Expected Feb 2029)**

Projects

HostOpen (hop) | Self-Hosted Tunnelling Daemon | *Source Code*

- Built solo in **Go** an open-source, self-hosted ngrok alternative that puts local servers on public **HTTPS** URLs.
- Designed a custom **binary control protocol** between agent and daemon so the auth token never travels as a web request, with **protocol-version checks** at the handshake so client and server upgrade independently.
- Automated TLS with **ACME DNS-01**: the daemon issues its own DNS records and **wildcard certificate** via **14 DNS providers**.
- Shipped versioned releases with **GoReleaser** and **GitHub Actions**: Homebrew or one-line install script for the client, a single **multi-arch Docker image (GHCR)** for the server.

PkpWays | Live Polish Railway Map | *Live Demo* and *Source Code*

- Built a live map of every train on the Polish railway network; since the PKP PLK open-data API publishes timetables, not GPS, positions are **interpolated from schedule and delay data** along route geometry generated from **OpenStreetMap** tracks (**2,953** stations geocoded, **7,985** route segments).
- Designed a **Python** worker as the sole caller of the upstream API, polling into **PostgreSQL** for warm storage and **Redis** as the hot cache, so any number of visitors read from the cache, never the upstream.
- Deployed the worker, database, **Next.js**/**Leaflet** map, and TLS as one **Docker Compose** stack on a self-managed **Linux VPS**.

AmIDown | Multi-Region Availability Checker | *Live Demo* and *Source Code*

- Checks a site from **three AWS regions** at once to tell "unreachable" apart from "reachable but refusing you".
- Deployed one **FastAPI** app as an **AWS Lambda** per region via **Mangum** behind **API Gateway** with per-region keys, so idle regions cost nothing and a new region is a deploy, not another server.

VERSED | 1v1 Outfit-Battle Mobile App | *Source Code*

- Built a cross-platform app with **Flutter**, **Riverpod**, and **Supabase** (auth, Postgres, photo storage).
- Moved scoring into **PL/pgSQL** functions so matchmaking and votes settle in **one server-side transaction**, with grants keeping win counts out of the client's reach.

Hackathons

Day One Ukraine Hackathon | Team Lead & Backend | **1st Place**, Water & Sanitation Challenge **22 - 23 Jun 2026**

- Led a **five-person team** to **1st place** in the Digital Public Infrastructure track among **100+ participants** over 36 hours, building **deVoda**, a **Flutter** app that maps drinking-water sources and resilience points in real time.
- Sourced, parsed, and normalised scattered water-point records into a **single queryable dataset** served live by the app, and pitched the solution on stage to the judging panel.

Warsaw Open Data Hackathon, 42 Warsaw | Backend | *Live Demo* and *Source Code* **17 - 18 Oct 2026**

- Built the backend of **DefiWawa** in 24 hours (**100+ participants**, 23 teams), a web app on Warsaw's open data that finds the nearest defibrillator **open right now** and routes the user to it on foot.
- Ran **Supabase** with **PostgreSQL**/**PostGIS** holding **~900 AEDs**, and wrote **Deno Edge Functions** that filter by opening hours and compare real walking times from **Mapbox** routing to pick the fastest one.

HackYeah 2026, Kraków | Team Lead, Backend & Mobile | *Live Demo* and *Source Code* **3 - 4 Oct 2026**

- Led a four-person team among **3,000+ participants** building **Palladion**, a reputation-threat monitor that catches viral rumours across X, Reddit, Bluesky, and news, fact-checks claims with **vector search over pgvector**, and drafts evidence-backed rebuttals.
- Owned the **FastAPI** backend and **Supabase** schema with **org-scoped auth**, routing confidential documents only to **local LLMs**, and the **Expo** mobile app.

Technical Skills

- **Languages:** Python, TypeScript, JavaScript, Go, Java, SQL, Dart, Bash
- **Backend:** FastAPI, Next.js, SSE, TLS/ACME, Protocol Design, Stream Multiplexing, DNS, Reverse Proxying
- **Frontend & Mobile:** React, Flutter, Riverpod, Expo, Leaflet, Mapbox
- **Databases:** PostgreSQL, PostGIS, Redis, Supabase, pgvector
- **Cloud & Infrastructure:** Linux VPS, Docker, systemd, Caddy, Nginx, AWS Lambda, API Gateway, GitHub Actions, GoReleaser, GHCR, Git
- **AI & APIs:** Vercel AI SDK, OpenAI API, Google Cloud Vision
- **Spoken Languages:** English (C1), Ukrainian (Native), Russian (C1), Polish (B1)