

# Andrew KRAVCHUK, Senior Software Engineer

+382 68109578 | [awkravchuk@gmail.com](mailto:awkravchuk@gmail.com) | [WhatsApp](#) | [LinkedIn](#) | [Github.com/lockie](https://github.com/lockie) | [awkravchuk.me](https://awkravchuk.me)

## SUMMARY

Senior Software Engineer with 17 years of experience shipping production software – from systems programming in C and C++ to high-load Python web platforms. Shipped systems at scale as both sole architect and team member, including payment pipelines processing EUR 600K+ annually, custom analytics cutting EUR 50K+/year in licensing costs, and integrations reaching 3M+ users. Fluent in Clojure, Common Lisp, Python, and C/C++, with a track record of mastering new domains under production deadlines. Seeking a senior systems role leveraging low-level depth and full-stack breadth to solve hard performance and architecture problems.

## SKILLS

C, C++, Clojure, Common Lisp, Python, Lua, LLM-Powered Development, Prompt Engineering, Linux, Docker, Git, Gitlab CI, Boost, CMake, Qt, GStreamer, FFmpeg, asyncio, Django, DRF, PostgreSQL, Redis, MongoDB

## EXPERIENCE

### Senior Software Engineer | Health Samurai Inc.

Nov 2025 – Apr 2026

A Los Angeles health tech company building the Aidbox Platform – an enterprise FHIR server for developing compliant healthcare applications, with 100+ clients across 30+ countries and managing 1B+ FHIR resources.

SKILLS: Clojure, LLM-Powered Development, JVM, PostgreSQL, DataDog, Drone CI, TypeScript, React

- Optimized the Aidbox background task engine by refactoring from virtual threads to a fixed thread pool resolving JVM thread pinning. This enabled reliable processing of surges of thousands of patient insurance eligibility prefetch requests from a large customer, with the stored data available for instant lookups by the customer's billing agency clients.
- Integrated the Aidbox platform with an insurance payer network of 10K+ payers via SOAP API, replacing a third-party REST polling gateway that could take 30+ minutes to respond. The synchronous SOAP request returns richer eligibility data within a second.
- Built a TypeScript/React admin dashboard that displays insurance eligibility requests and their processing status in real time, serving staff of 400+ billing agencies across multiple US states. Delivered production-quality frontend with no prior commercial experience in either framework through LLM-powered development.

### Senior Software Engineer | Undisclosed Employer (NDA)

Nov 2023 – Jun 2025

Aug 2018 – Jul 2020

A US-registered non-profit organization. Specific details are withheld under a non-disclosure agreement.

SKILLS: C, C++, eBPF, Python, LLM-Powered Development, Prompt Engineering, Google APIs, Stripe API, Django, DRF, aiogram, Celery, PostgreSQL, MySQL, Elasticsearch, Redis, Docker, Kubernetes

- Developed a custom analytics system singlehandedly using C/C++ and eBPF to track visitor behavior across dozens of websites, fully replacing Google Analytics collecting equivalent data. Eliminated an estimated EUR 50K+/year in enterprise analytics licensing costs while collecting gigabytes of granular, privacy-controlled data daily.
- Built an asynchronous high-load donation processing system in Python/aiohttp with PostgreSQL on Kubernetes/GCP, integrated with a third-party payment processor. The system became the organization's sole online donation channel, processing EUR 600K+ in annual contributions from 70K+ supporters. Included recurring payments, Apple Pay, 3DS, and real-time payment status tracking.
- Designed the core backend for an outbound calling system. Built a PostgreSQL data warehouse by cleaning and merging multiple data sources, and created an API for a calling bot that distributed contact tasks to operators with database-level concurrency control, ensuring each contact was assigned exactly once across 100M+ records.
- Contributed to a geographic search platform built with Django/DRF, PostgreSQL and PostGIS, as part of a 3-person backend team. Built an address geocoder, scraped and parsed terabytes of open geographical data into Elasticsearch for fuzzy address lookups, and performed a live production data migration. Deployed across 30+ regions.

## Senior Software Engineer | RavenPack International S.L.

Aug 2020 — Jul 2021

A leading fintech data analytics provider based in Malaga, Spain. Processes 40K+ sources in 13 languages to deliver sentiment and event analytics to the world's top hedge funds, banks, and asset managers; 200+ team members.

SKILLS: Common Lisp, Jenkins, Linux, Docker, Git, Python, AWS, Oracle

- Automated a daily pipeline for reprocessing the 20+ year news archive with specific builds of the Common Lisp analytics engine using Jenkins and Python, orchestrating AWS instance fleets of up to thousands of machines to complete the job within an hour. Reduced a multi-step manual preparation process that took 3+ error-prone man-hours to a self-service operation, eliminating the risk of costly AWS billing incidents.
- Reduced page load time on the internal admin system's main page from over a minute to under 2 seconds – a 30x improvement – for a 200+ person team that relied on it daily. Proactively traced the long-standing issue to an inefficient database query pattern and restructured the underlying queries.

## Lecturer | OTUS Online Education LTD

Mar 2018 — Dec 2025

One of Russia's leading online edtech platforms, offering 200+ courses delivered by 700+ instructors, with 41K+ graduates.

- Created the “C Developer” course from scratch and ran it for 4 years across 14 cohorts of 250+ students. Lectured on the “Python Developer Professional” course across 20 cohorts totaling 500+ students. Maintained a 4.95/5 average instructor rating – among the highest on the platform.

## Software Engineer | Various Employers

Jul 2009 — Jul 2018

- Held engineering roles across aerospace, cybersecurity, CCTV, and education – from building C++/Qt desktop apps to Python/Django web platforms and university lecturing. The work spanned CAD tools for aircraft wiring, perimeter monitoring deployed at a nuclear power plant, acoustic signal detection systems, a sandboxing product GUI used by 100K+ users, and teaching programming to hundreds of students.

## EDUCATION

### Postgraduate studies in Applied Mathematics & Computer Science | Dubna University 2012 – 2015

Completed the full postgraduate curriculum and passed all qualifying exams, but did not complete the thesis due to departmental restructuring. Thesis topic: “Mathematical Models of Distributed Information Processing in Biological Neural Networks.”

### Master of Applied Mathematics & Computer Science | Dubna University

2010 – 2012

Co-authored 3 peer-reviewed publications, presented at conferences including the Lomonosov International Conference at Moscow State University and the Joint Institute for Nuclear Research Youth Conference. Master's thesis: “Implementation of Artificial Neural Networks on Cellular Structures.” GPA: 4.00/4.0.

### Bachelor of Applied Mathematics & Computer Science | Dubna University

2006 – 2010

Bachelor's thesis: “Quadrature Formulas for Functions of Several Variables.” GPA: 3.91/4.0.

## HOBBIES

- Created, contributed to, and (co-)maintain 10+ open-source libraries and tools.
- Running a small Python/Django/PostgreSQL/Redis website curating humorous stories with community voting, generating modest ad revenue since 2016.
- Streamed 100+ livecoding sessions on Twitch over 2+ years, building projects in Common Lisp. Sessions are archived on a YouTube channel with 350+ subscribers, peaking at 50+ concurrent viewers.
- Built a framework in Common Lisp implementing the Entity Component System pattern – an architectural approach that composes entities from reusable components – and wrote a detailed tutorial series on building video games with it. Part 2 reached 330+ upvotes and 60+ comments on Hacker News, holding the front page overnight.
- Built 9 games for game jams, published on the Itch.io platform, accumulating 80+ followers. Founded *Lucky Lambda Studio*, a remote team of 5 developing a rogue-like game in Common Lisp with self-built ECS, pathfinding, and AI libraries, and CircleCI builds. Handling the release builds and launch of a Ren'Py-based visual novel by an online brand with 500K+ followers. Both slated for release on Steam.