

## Summary

Passionate about IT and cybersecurity for 20 years. Co-Founder, former CEO and CTO of Microimpuls, where we built software and video streaming services for ISPs and OTT platforms. Later moved to the non-profit sector, focusing on meaningful tech projects. I've led and built systems from scratch – as a software developer, architect, DevOps, and tech lead. I enjoy solving deep, non-trivial problems that require going back to fundamentals. Strong at untangling complexity – whether technical, structural, or human. Results-driven, with a passion for clean, well-structured systems.

## Experience

<b>CTO</b>	<b>OI</b>	<b>09.2023 – present</b>
<ul style="list-style-type: none"><li>Redesigned the IT department structure and delivery workflows within a broader Agile transformation.</li><li>Optimized internal support operations and task tracking processes across multiple departments.</li><li>Handled infrastructure resilience in the face of internet censorship, domain bans, and other restrictions.</li><li>Led the design and implementation of several projects using low-code platforms and custom services (primarily Python/PostgreSQL + Vue/React) to launch solutions in the shortest possible time.</li><li>Led the rollout of a new helpline contact center and VoIP system, managing team setup, technical alignment, and full organizational adoption.</li></ul>		
<b>DevOps</b>	<b>OI, part-time</b>	<b>06.2021 – 09.2023</b>
<ul style="list-style-type: none"><li>Hardened server configurations, wrote orchestration scripts, updated system settings, introduced asset tracking, and prepared the infrastructure for IaC and modern CI/CD practices.</li><li>Maintained a high-load service for streamlined submissions to government agencies during large-scale solidarity campaigns, including on-the-fly infrastructure adjustments to bypass emerging restrictions.</li></ul>		
<b>Volunteer</b>	<b>OI, part-time</b>	<b>02.2021 – 06.2021</b>
<ul style="list-style-type: none"><li>Built a real-time analytics dashboard (Python/Flask/MySQL + frontend boilerplate) to monitor incoming requests via a hotline, helping the coordination team provide faster and more effective support for detained people during public protests.</li><li>Developed the backend for a self-registration service accessed via mobile app (same stack + WebSockets/Socket.IO) to streamline analyst workflows and speed up legal support during mass protests.</li></ul>		
<b>Architect &amp; Engineer</b>	<b>Freelance</b>	<b>12.2022 – present</b>
<ul style="list-style-type: none"><li>Architected and built a scalable data search system for large, heterogeneous datasets. Implemented a full processing pipeline (Python/Elasticsearch) and deployed GCP-based infrastructure. Achieved fast indexing of over 1 billion records in 2 days via optimized parallel processing.</li><li>Resolved performance and stability issues in a high-load Squid-based proxy used by a browser extension for bypassing internet censorship. Identified and fix root causes (race condition, DNS caching quirks, misconfiguration) through traffic/log and source code analysis and tuning. Cut proxy errors by ~200x.</li><li>Migrated and rebuilt a legacy big-data platform (Python/Django/MySQL) into a scalable, dockerized cloud infrastructure with CI/CD (Ansible+Bitbucket), monitoring, and fault tolerance.</li></ul>		
<b>Cybersecurity Expert</b>	<b>eQualitie, part-time</b>	<b>11.2020 – 12.2022</b>
<ul style="list-style-type: none"><li>Designed a selection system for evaluating organizations and fellows applying to a Fellowship program.</li><li>Mentored organizations and tech specialists, helping identify key security problems and implement practical solutions (SAFETAG Framework).</li><li>Investigated and mitigated a ransomware incident that nearly destroyed an organization's infrastructure; restored domain controller, file server, and operations within days.</li><li>Developed a cybersecurity educational program, coordinated expert speakers and practical exercises.</li><li>Contributed to organizing hackathons, conferences, and offline events.</li></ul>		

<b>Co-Founder &amp; CTO</b>	<b>Microimpuls</b>	<b>06.2013 – 02.2022</b>
<ul style="list-style-type: none"> <li>Co-founded and built the company from a startup, driving product strategy, technical leadership and operational structure – and scaled it into a profitable international business.</li> <li>Developed all MVPs and participated in building all key products, including OTT-platform (Python/Django), video streaming software (C/C++), end-user applications (primarily JavaScript) and streaming service.</li> <li>Built custom infrastructure to minimize operational costs: assembled bare-metal servers for video transcoding, configured a 40 Gbps multi-uplink streaming CDN, obtained LIR status and IP address space, and established contracts with Tier 1 ISPs in Russia, Germany, the Netherlands, and the US.</li> <li>Represented the company at trade shows and led contract negotiations with major clients.</li> </ul>		
<b>Software Engineer</b>	<b>Bluepoint TV</b>	<b>01.2012 – 12.2013</b>
<ul style="list-style-type: none"> <li>Refactored and optimized key modules of the IPTV platform, improving backend performance (PHP) and video streaming (C++) under high load.</li> <li>Developed Smart TV apps (JavaScript) for several brands and integrated them with the core system.</li> </ul>		
<b>Software Engineer</b>	<b>IP-Media (OFT-Media)</b>	<b>07.2011 – 01.2012</b>
<ul style="list-style-type: none"> <li>Built a custom TCP-based protocol for low-latency live video delivery over unstable networks (C/C++), with adaptive bitrate and dynamic buffering. Enabled stable Full HD streaming with &lt;500ms latency.</li> <li>Developed a live content delivery service on top of this technology, handling ingest, restreaming, and distribution with minimal buffering and higher reliability than RTMP or HLS.</li> </ul>		
<b>Software Engineer</b>	<b>Focus Life</b>	<b>02.2008 – 08.2011</b>
<ul style="list-style-type: none"> <li>Built an IP telephony platform based on Kamailio (OpenSER). Developed modules for dynamic call routing and queue management (C/C++), and a management portal (Python/Django). Supported thousands of users and 10+ call centers, with voice features like IVRs and call recording.</li> <li>Built a custom internal management system (Python/Django) for a telecom provider, automating workflows across support, tech, and installation teams.</li> <li>Contributed to IPTV service integration and customization, including vendor selection and setup, satellite receiver configuration, and development of a custom time-shift module. Launched within 3 months.</li> <li>Implemented a local torrent tracker and re-tracker integrated into the ISP's internal network, enabling high-speed file sharing between users and reducing upstream bandwidth costs.</li> </ul>		
<b>Developer</b>	<b>OPORA-Svyazinvest</b>	<b>01.2007 – 12.2007</b>
<ul style="list-style-type: none"> <li>Developed a high-performance call queue module (C) for an Asterisk-based contact center solution, improving call handling efficiency and routing flexibility.</li> <li>Developed an operator web-interface embedded into the softphone (PHP + WinAPI).</li> </ul>		
<b>Developer</b>	<b>KomTels</b>	<b>06.2006 – 11.2006</b>
<ul style="list-style-type: none"> <li>Assisted the IT team and director in automating internal reporting and technical workflows (Delphi).</li> <li>Was invited to join the company after reporting a security vulnerability in the user portal.</li> </ul>		
<b>Workshops &amp; Mentorship</b>		
<b>Senior Lecturer</b>	<b>Orenburg State University</b>	<b>09.2018 – 08.2019</b>
<ul style="list-style-type: none"> <li>Ran a semester-long course for two student groups focused on “Analysis of Software Implementations” and “Software Vulnerabilities.”</li> <li>Redesigned the curriculum using CTF-inspired mechanics: students built intentionally vulnerable applications, exchanged them mid-semester, and practiced finding and fixing real bugs. The format emphasized hands-on learning and was well received by students.</li> </ul>		
<b>Expert</b>	<b>Elena Bonner School of Human Rights</b>	<b>2024</b>
<ul style="list-style-type: none"> <li>Led a hands-on workshop for ~250 participants, teaching how to use n8n to build practical IT tools and automate routine tasks with little to no coding experience.</li> </ul>		

## Mentor

## Web Security Fellowship

2021 – 2022

- Developed two educational programs for WSF participants, each including 10–15 webinars structured into modules on Operational Security, Secure Development, Infrastructure Security, and Pentest.
- Designed and led a webinar titled “Development of a Fault-Tolerant Secure Web Application by SDLC”, presenting the web app development process through the lens of different roles – developer, tech lead, architect, CTO, and security specialist.

## Hackatons & other

- At various times, I’ve been invited to serve as a mentor, expert, or jury member at hackathons, f.e. the Demhack, the Digital Security Hackathon, the WSF Hackathon, or the mini-series Shifropunks.

## Achievements

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- 2024 / Endorsed for the UK Global Talent in the field of digital technology.
- 2016 / Microimpuls and our core product Smarty received a Big Digit Award in the category “Best IPTV & OTT Platform”.
- 20xx / Top placements at UralCTF (1st in 2012, 2nd in 2011), OrenCTF (2nd in 2021), Volga-IT (3rd in 2011), RuCTFe (5th in 2011), and RuCTF finals (2009–2012).

## Current Tech Stack

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Over the years, I’ve worked across the full stack with a wide range of technologies – from low-level languages like C/C++ to web development with JavaScript, along with various frameworks, databases, infrastructure tools, and cloud platforms. In recent years, my focus has shifted more toward system design, technical leadership, and team coordination – though I stay hands-on and involved in implementation details when needed. At the same time, I still enjoy building things myself. Below is the tech stack I’ve actively used in recent projects:

- **Languages:** Python (used most frequently)
- **Frameworks:** Flask (previously worked extensively with Django, but now prefer simpler solutions)
- **Databases:** PostgreSQL, Elasticsearch, Redis, SQLite
- **Task queues:** Celery
- **DevOps:** Docker, Ansible, Grafana, Prometheus, GitLab, nginx
- **Cloud & Hosting:** DigitalOcean, GCP, AWS, Hetzner, OVH
- **Low-code & ETL:** Airtable, Baserow, n8n

## Education

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- 2020 / Pentester, HackerU.
- 2019 / Pentester, Web Security Fellowship.
- 2011 / Master of Computer Applications, Mathematics, Orenburg State University.
- 2011 / Bachelor of Fine Arts, Visual Design, Orenburg State University.