

Arsen Tomachenko

Sr. Software Engineer

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Up arsent8

Profile

I am a Senior Software Engineer with over 11 years of professional experience in software development. My expertise spans web and mobile application development, with a strong emphasis on video streaming and processing technologies. I have extensive experience handling client requirements end-to-end from system architecture and development to production deployment and maintenance. Recently, I have developed a deep interest in AI-driven image and video processing, where I've already achieved notable progress. I approach every project with a beginner's mindset, continuously learning and striving to deliver intelligent, reliable, and highquality solutions.

Professional Experience

07/2022 - 04/2025

Copilot LLC

Lead Engineer (Streaming)

Modernized the back-end servers using .Net, C#, and WebSockets.

Rewrote the website from scratch in Vue.js with ASP.NET ♂ as a back-end API

interfacing with a SQL Server database hosted on Azure.

Added Copilot Meetings using JavaScript and WebRTC, leveraging Twilio APIs. Managed a team of freelance consultants to augment my skills, specifically in QA, copywriting, marketing, and graphic design

05/2018 - 05/2022

Yaraku

Sr Fullstack Engineer (WebRTC)

Headed a technical team to deliver a successful beta for a video conferencing project with real-time WebRTC and AI translations, gaining continued interest from 82% of around 100 participating companies.

Built a custom media server and client from scratch, supporting thousands of concurrent participants.

Customized and deployed ML models for real-time processing, improving inference throughput by over 10,000%.

Trained multiple engineers to progress from beginners to production-level proficiency in Rust.

Wrote and deployed a custom Kubernetes controller to services needing publicly addressable sockets.

06/2015 - 04/2017

Solaborate

Software Developer

Integrated Kurento Media Server, which is used for streaming live video to users using WebRTC.

Implemented a feature for video calls that transferred from P2P to Kurento without dropping the call.Integrated Kurento Media Server, which is used for streaming live video to users using WebRTC.

Implemented a feature for video calls that transferred from P2P to Kurento without dropping the call.

Transitioned the current monolith app to a microservice architecture by using a WebRTC microservice.

Formulated and implemented transfer strategy for microservice architecture throughout the entire application.

Mentored and trained new and existing employees in WebRTC and real-time systems. Transitioned the current monolith app to a microservice architecture by using a WebRTC microservice.

Formulated and implemented transfer strategy for microservice architecture throughout the entire application.

Mentored and trained new and existing employees in WebRTC and real-time systems.

Languages	
• • • • English	• • • • •
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Education	
	• • • • English

2011 – 2015 Bachelor of Computer Science

Ivan Franko National University of Lviv 🛭

Projects

Broadcast Live Video 🛭

Video Streaming Platform

Developed and maintained a large-scale live video streaming platform enabling real-time broadcasting and monetization for content creators. Designed and optimized backend services using PHP (Laravel) and Node.js, with integrated WebRTC, HLS, and RTMP protocols for high-quality live video delivery. Implemented adaptive bitrate streaming, token-based authentication, and low-latency chat features for interactive user experiences. Managed server scaling and load balancing on AWS, improving system stability and throughput. Collaborated closely with product and DevOps teams to enhance streaming reliability and integrate payment, subscription, and analytics modules.

WebRTC, Wowza Media Server, Live Streaming Setup, Javascript, Node.js, Laravel

HimyNameIsApp 🛮

Social Networking & Video Chat Platform

Developed a modern social communication app focused on real-time video chat, friend discovery, and interactive user profiles. Implemented the iOS client in Swift, integrating WebRTC for live video calls and Firebase for messaging and user presence tracking. Built scalable backend services using Node.js and MongoDB, enabling secure user authentication, content moderation, and push notifications. Optimized media streaming performance and reduced connection latency across regions using TURN/STUN servers and AWS infrastructure. Contributed to UX improvements, analytics integration, and overall system reliability to support thousands of concurrent users.

Swift, Node.js, Socket.io, WebRTC

Push Doctor 🗷

Online GP Consultation & Telemedicine App

Contributed to the development and optimization of Push Doctor, a leading UK telemedicine platform enabling patients to consult with licensed doctors via secure video calls. Worked on iOS and Android app enhancements using Swift and Kotlin, improving video stability, in-app chat, and appointment booking workflows. Integrated WebRTC for real-time consultations and FHIR-compliant APIs for medical data exchange. Enhanced backend performance and scalability using Node.js, RESTful APIs, and AWS services to handle large volumes of concurrent sessions. Collaborated with product, QA, and compliance teams to ensure GDPR, HIPAA, and NHS Digital security standards were met. Contributed to achieving a smoother telehealth experience used by thousands of patients daily across the UK.

Swift, Kotlin, WebRTC, Node.js, AWS

INTCH 🛮

Professional Networking & AI-Powered Job/Project Matchmaking Platform

Built intuitively to connect professionals, experts, founders, and employers via AI-matched introductions instead of cold outreach. Users can create "requests" (short pitches or offers), add video or profile media, and be matched by the algorithm with people needing their expertise or seeking collaboration. The platform supports remote & part-time work, "hidden job" opportunities, investor / founder pitch functionality, and warm networking via communities and micro-communities. Features include subscription-based premium tools for enhanced visibility & matchmaking, social capital gamification (helping others boosts your reach), employer / expert matching for tasks rather than hiring full roles. Designed with a mobile-first/web interface, integrating UX for ease of networking, video pitching, and community building. Scaled user base (~100-120k+ professionals globally) and emphasized trust, profile verification, and AI relevance in matching.

Skills

Web Frontend Development

React/Next, Vue, Svelte/Sveltekit, Material UI, Tailwind CSS,

Video Streaming Tech

WebRTC, FFmpeg, GStreamer, Twilio, Kurento, Kamalio

Backend Development

Node/express.js, Python/Flask, FastAPI, Go/Golang, PHP/codeigniter, Laravel, Java/Spring

DevOps

GitHub Actions, GitLab CI, CircleCI, AWS, GCP, DigitalOcean, JFrog, Docker, Kubernate

Mobile Development

Java/Kotlin, Swift, Dart, Flutter, Objective-C

Testing Framework

JS - Jest, Mocha Python - Unittest, pytest Go - testing (built-in), Testify, GoConvey PHP - PHPUnit, Pest