

# Illarion Kovalchuk

Senior Software Engineer / Team Leader

## Contact

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## Summary

Senior Software Engineer and Team Leader with 18 years building distributed systems for video streaming, cloud infrastructure, and big data processing. Currently architecting microservices at Teradek for live video production workflows. Core contributor to gobetween.io load balancer and creator of BrokenBeats online radio platform. Experienced leading teams from architecture through implementation across startup and enterprise environments.

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## Skills

**Languages:** Golang, Node.js, Java, Python **Databases:** MongoDB, Cassandra, Redis, MySQL, BoltDB **Infrastructure:** AWS, DigitalOcean, Docker, Nginx **Specialized:** TCP/UDP protocol design, video streaming systems, distributed systems, load balancing (gobetween)

**Human Languages:** English (fluent), Ukrainian (native), Russian (fluent)

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## Experience

### Teradek

**Senior Software Engineer / Team Leader** *June 2016 – October 2025* - Architected microservices platform for CoreCloud and Teradek TV, handling live video streaming for professional broadcast customers - Designed custom TCP/UDP protocols for low-latency video transport, supporting thousands of concurrent streams - Built distributed architecture using Node.js and Golang services with Redis session management and MongoDB metadata storage - Led engineering team through architecture design, implementation, deployment, and production support - Maintained 99.9% uptime for mission-critical broadcast workflows serving global customer base

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### gobetween.io

**Core Contributor** *August 2016 – October 2025* - Core contributor to open-source load balancer written in Golang - Participated in architecture decisions, feature development, and code reviews - Implemented protocol handlers and balancing algorithms for production deployments

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## **Brokenbeats.net**

**Author and Creator** *November 2015 – October 2025* - Built online radio streaming platform from scratch using Golang, FFmpeg, and Docker - Implemented audio processing pipeline for continuous streaming with automatic playlist management - Designed containerized architecture for scalable deployment and zero-downtime updates

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## **CloudLinux**

**Senior Software Developer** *July 2014 – October 2015* - Developed monitoring tools for constrained Linux environments in shared hosting infrastructure - Built userland components for process tracking, resource limiting, and security isolation - Improved system stability and security for hosting providers managing thousands of customer accounts

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## **Scrapinghub**

**Software Engineer** *August 2013 – May 2014* - Developed Python-based web crawlers and distributed crawling infrastructure for large-scale data extraction - Optimized crawling algorithms to reduce memory footprint and increase throughput - Built geographical indexing system for U.S. locations using spatial data structures

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## **Augmented Pixels Co**

**Software Engineer** *December 2013 – February 2014* - Developed backend APIs and frontend interfaces for augmented reality product websites - Built content management and demonstration systems for showcasing AR technology capabilities

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## **nScaled**

**Senior Java Developer** *September 2012 – April 2013* - Developed backup and disaster recovery solutions for enterprise cloud infrastructure - Built data processing pipelines using Hadoop for parallel backup operations across distributed storage - Designed data persistence layer with Cassandra for metadata and MySQL for relational data

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## **Augaroo, Inc.**

**Senior Java Developer** *June 2011 – September 2012* - Built data processing pipeline for large-scale analytics platform using Java and Hadoop - Developed ETL tools for ingesting and transforming high-volume data streams - Created monitoring and operational infrastructure for distributed data processing clusters

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## **Comodo**

**Team Lead** *August 2008 – June 2011* - Led team building Comodo Cloud server infrastructure from initial architecture through production launch - Designed distributed storage and synchronization system for cloud file sharing platform - Managed engineering team and coordinated with external partners using Scrum methodology - Drove product through multiple release cycles serving growing user base

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## **LTD OM-Technology**

**Software Developer** *June 2005 – August 2008* - Developed medical diagnostic software with eye recognition algorithms for automated patient testing - Built reporting engine for generating medical reports from diagnostic data - Implemented statistical analysis and clustering algorithms for patient parameter classification

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## **Education**

- **Odessa State Academy of Refrigeration** Master's Degree in Computer Engineering  
*2001 – 2007*