

# Mykhailo Kozik

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I am a software engineer with 12+ years of experience, who builds reliable software. I like to solve problems, both technical and business. Deeply engaged in the domain. I believe good engineers must bring value at every step of the software development lifecycle. Proponent of simplicity. Progress over perfection.

## Experience

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Software Architect @ [Takeoff Technologies](#)

Jan 2019 - Mar 2023 (4+ years)

Robotic Platform for Grocery Stores

clojure, go, postgres, google cloud, kubernetes, terraform

**Retailer Integrations.** Built a Public API for integration with Retailer business processes: eCommerce, Replenishment, Inventory and Product Catalog management. Integration flows support Rest API, plain files and webhooks. Built transformation framework and pipeline for the Product Catalog management. Includes DSL for Data Analysts and Reporting for the client. Successfully integrated with ten large grocery retailers.

**Nestor.** Business Events monitoring tool. Identifies gaps and anomalies in the Customer Order flow processes, visualizes in the dashboard and proactively reports to support what and where is the problem.

**User Management.** Architecture & Design of Single Sign-on, RBAC and self-service portal for the client. All internal employees migrated to SSO. One of the largest clients integrated with their own Active Directory.

**Outbound Fulfillment.** Performed audit and analysis of the current state of the fulfillment and picking flow, identified critical architectural flaws and built a strategy to overhaul the process. Team of 40+ engineers were delivering improvements and as a result drastically dropped down error rate and incidents.

**Inbound.** Served as a Domain Leader and Architect for the Inbound processes as Receiving workflows, Inventory Management, Assortment management or Replenishment. Built and responsible for Technical Strategy and Roadmap. Regular review of the design of new features. Simplified legacy architecture and partially migrated to the multitenant architecture.

**Architecture Guild.** Active participant of the architecture working group. Performed regular design reviews, patterns & principles for the clean architecture, presentation and socialization to make sure engineers followed company engineering goals. Automated Data Model from over 50 data sources, so it is always up to date. Built a toolkit to maintain component diagrams and identify unstable components. Found checkbox which reduces cloud spend by \$400k/year.

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Senior Software Engineer @ [Qvantel](#)

Feb 2018 - Jan 2019 (1 year)

Document Management System for Telecom

clojure, clojurescript, reagent, cassandra, consul, docker

**Document Storage.** High Available file storage based on Cassandra. Rich capabilities including chunking, redundancy, audit trails, metadata, diffs and file type detection.

**Document Templating Manager.** Visual Editor for document templating based on custom DSL, PDF or DOCX templates. Batch documents generation. Ability to produce complex documents, like long contracts with watermarking or pixel-perfect payslips with barcodes.

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Senior Software Engineer @ [Zoomdata](#)

Jan 2015 - Feb 2018 (3+ years)

Visualization Platform for Big Data

java, clojure, spring, postgres, spark, thrift, kafka, docker, consul

**Calculation Parser.** Developed clojure library to process user input from calculations editor and build a parsing tree, which later used by query engine as execution plan.

**Enterprise Data Connector.** Toolset consists of API for querying abstract database; microservice framework, which provides an easy way to build connectors as microservices and Connector Shell, standalone full-featured REPL for sending request to connector servers. More than 20 connectors to different data sources has been built based on EDC architecture.

**Unified Streaming Architecture.** Complex event processing for streams.

**Fabric for Adaptive Analytics with Smart Technologies.** Add-on for Zoomdata to improve query performance by saving pre generated data using query popularity, fresh storage and tens of other methods.

**Query Boost Intelligent Compiler.** Offline library builds a lattice data structure on top of the database which provides ways to optimize and speed up queries far beyond standard approaches. Experimental.

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Senior Software Engineer @ [EPAM](#) (IHS)

Aug 2014 - Jan 2015 (6 months)

Search System

java, lucene, solr, spring

**Search System.** Developed full-featured stateless search prototype with facets, filtering, highlighting and paging from scratch. Later some features from the prototype were migrated to the production system. Implemented a strategy that uses PostingsHighlighter instead of FastVectorHighlighter. New highlighter greatly improves the accuracy of snippets, speeds up indexing two times and index size is reduced by 30%.

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Software Engineer @ [EPAM](#) (Clarabridge)

Jan 2011 - Aug 2014 (3.5 years)

Text Analytics Software

java, spring, postgres, oracle, gwt, salesforce, soap, nlp, sentiment analysis

**Salesforce Connector.** Provides ability to pull data from salesforce.com and map it directly to our system. Improvements to our own connector framework.

**API.** Development of new SOAP based API services, enhance existing ones.

**RateLimiter.** High-performance request throttler for API. Allows throttling by number of requests per second or number of characters per second to be processed.

**R&D.** Research work to improve the quality of sentiment calculation process. Data preprocessing techniques and new algorithms were prototyped. Some results of R&D have been accepted by a customer and integrated into the system.

**Full Stack Features.** Responsible for full-stack development for features Custom Calendars, Derived Attributes, Taxonomy and Sentiment Exception Rules.

## Education

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NTUU "KPI", Master's Degree, Applied Math

2006-2012

Numerical Methods for solving Navier-Stokes Equation

## Other Projects

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Technical Blog @ [mishadoff.com](#)

programming, clojure, java, algorithms, patterns

Priceous @ [github.com/mishadoff/priceous](#)

web aggregator from online alcohol stores

numberto @ [github.com/mishadoff/numberto](#)

library, clojure, math, numbers

littlepot @ [github.com/mishadoff/littlepot](#)

library, clojure, autofilled queue, stm