

# Alexey Rykhalskiy

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Solution Architect

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## TECHNICAL

**FP, Scala**, Stream Processing, Cats, Effects, FS2, Kafka, Doobie, ZIO, Spark, Akka, Play, Slick, OOP, SQL, NoSQL, Algorithms, Optimization, Distributed Systems, CQRS/ES, DevOps, Docker, Kubernetes, CI/CD  
**Ready to switch to Rust/Haskell**

## EXPERIENCE

10+ years of software development: Supply-delivery Chain systems, Logistics, Warehouse, Banking, Call Centre, Contact Centre, Mobile Content Delivery, Billing, Medical, Insurance, Inquiry-Information services, CRM / ERP systems

## PERSONAL

Outcome-oriented, Attitude to subtle details, Outstanding learning abilities

## EDUCATION

MSc, Engineer mathematician. Kyiv Polytechnic Institute, Applied Math

## LOOKING FOR

Innovate projects, Projects with rich domain requiring severe data analysis and non-trivial architecture (streaming, stateful)

## SCOPE

System analysis, Data analysis, Domain Model modeling, Big Data, Architecture, Development

## LANGUAGE

English – advanced, Ukrainian – native

## CERTIFICATES

<https://www.credly.com/users/alexey-rykhalskiy/badges>

<b>RVO Health</b> Medical / Insurance	2023.03 – 2023.10	<b>Scala Engineer</b> , Solution Architect <a href="https://rvohealth.com">https://rvohealth.com</a> <ul style="list-style-type: none"><li>- Developed a streaming application for a health insurance company that enabled users to sign in and sign up for their app easily with immediate tracking.</li><li>- Created a streaming application that tracked user activities and attendance in recommended activities, resulting in improved engagement and user satisfaction.</li><li>- Integrated Data Dog to provide in-depth metrics and facilitate fast analysis for problem investigation.</li><li>- Implemented logic generalization techniques to improve code understandability and enable better unit testing.</li></ul>
<b>vidIQ</b> ML / Big Data	2021.12 – 2022.12	<b>Scala Engineer</b> , Solution Architect <a href="https://vidIQ.com">https://vidIQ.com</a> <ul style="list-style-type: none"><li>- As a Scala Engineer and Solution Architect, I was responsible for developing a system that could analyze YouTube statistics for millions of authenticated users. This involved both batch and stream processing.</li><li>- One of the main features of the system was the ability to analyze competing channels and provide detailed statistics for users. This helped our clients to stay ahead of the competition and make informed decisions about their content.</li><li>- Another key feature was automatic caption generation. This was based on the analysis of groups of competing channels, and helped to streamline subscribers and views amount. Overall, the system was a great success and helped our clients to achieve their goals on the platform.</li></ul>
<b>diwo</b> ML / Big Data	2020 – 2022	<b>Solution Architect</b> , Scala Engineer <a href="https://diwo.ai">https://diwo.ai</a> <ul style="list-style-type: none"><li>- As a Scala Engineer, I have worked on a wide range of projects. One such project involved developing</li></ul>

		<p>solutions for Mastercard that involved an enormous amount of streaming and batch processing.</p> <ul style="list-style-type: none"> <li>- Additionally, I worked on integrating Mastercard with Microsoft using Oauth2 authorization.</li> <li>- As an Architect, I also played a key role in building models to analyze and predict users' behavior based on tariff changes.</li> <li>- Finally, I developed a tool for data tokenization and de-personification.</li> </ul>
<b>CognitOps</b> <i>ML / Big Data</i>	2021 – 2022	<p><b>Scala Engineer</b>, Solution Architect <a href="https://cognitOps.com">https://cognitOps.com</a></p> <ul style="list-style-type: none"> <li>- Developed and implemented data collection strategies on the customer side</li> <li>- Live processing of large amounts of data to provide recommendations to clients for shift and labor adjustments</li> <li>- Performing data cleanup and normalization tasks to enable more effective and efficient use of ML solutions</li> </ul>
<b>Olympic Channel Services</b> <i>Streaming / Big Data</i>	2020 – 2021	<p><b>Solution Architect</b>, Scala Engineer <a href="https://www.olympicchannel.com">https://www.olympicchannel.com</a></p> <ul style="list-style-type: none"> <li>- Successfully developed and implemented real-time data streaming capabilities that enabled the display of overlays over the main video stream during the Olympic Games, handling a huge amount of data.</li> <li>- Designed and executed data cleanup and normalization processes, resulting in improved data quality and accuracy.</li> <li>- Developed a domain representation of the competition tree and implemented parsing of different sources (XLS, XML, JSON) to enhance data analysis capabilities.</li> <li>- Devised a data deduplication algorithm based on Levenshtein distance to detect misprints, leading to a significant reduction in data errors</li> </ul>
<b>ACT</b> <i>Big Data / Sustainability</i>	2020 – 2021	<p><b>Advisory board</b>, Solution Architect, Backend Developer (Scala), Data Engineer <a href="https://www.aacctt.org">https://www.aacctt.org</a></p> <ul style="list-style-type: none"> <li>- As an Advisory board member, I have been involved in various aspects of solution architecture, data engineering, and backend development (Scala).</li> <li>- My expertise lies in domain representation and data transformation, as well as model representation and criteria automation.</li> <li>- I have also developed recommendation systems based on deep product analysis and integrated manufacturers and shops for seamless operations</li> </ul>
<b>LA Developers</b> <i>Supply-Delivery-Chain</i>	2018 – 2019	<p><b>Principal Engineer.</b></p> <ul style="list-style-type: none"> <li>- Successfully implemented sophisticated error management and graph-based state transitions for a B2B solution to track all the steps in the cannabis industry, from plant manufacturing to testing, warehousing, selling, and tracking.</li> <li>- Developed a complicated graph to track state transitions to prevent lost orders and personnel exploitation, ensuring seamless and efficient operations for the company.</li> <li>- Designed and implemented a complex personnel tracking system, allowing the same people to work on different positions in different companies on different days while sharing their mobiles, streamlining the workflow and increasing productivity.</li> </ul>
<b>AMT Logistic</b> <i>Logistics</i>	2016 – 2018	<p><b>CTO</b>, Architect (Java / Scala)</p> <ul style="list-style-type: none"> <li>- Successfully developed and implemented B2B logistics solutions, including flows, documentation, and reports.</li> <li>- Introduced and executed supply-delivery chains, smart document turnover, and smart order tracking.</li> <li>- Integrated Nova Post and other Logistics companies for seamless collaboration.</li> <li>- Implemented smart parcel tracking system using barcodes and supervision at every step.</li> <li>- Proficient in composition and decomposition with corresponding document handling.</li> <li>- Developed an internal company CRM system to streamline operations and enhance customer experience.</li> </ul>
<b>Auto Moto Trade, Inc</b> <i>Wholesale</i>	2014 – 2017	<p><b>Architect, Developer</b> The automobile parts warehouse solution. <a href="http://automototrade.com">http://automototrade.com</a></p> <ul style="list-style-type: none"> <li>- Successfully developed and architected solutions for automobile parts warehouses, resulting in improved operational efficiency and streamlined workflow.</li> <li>- Facilitated seamless communication between different systems by creating API interconnections, which led to enhanced performance and improved customer satisfaction.</li> <li>- Implemented DevOps practices based on metrics, resulting in continuous improvement and a culture of innovation.</li> <li>- Successfully implemented low-cost uniform interoperability with dealers, accelerating the connection process and improving overall efficiency.</li> <li>- Demonstrated expertise in logistics companies' integration and smart inventory tracking, resulting in</li> </ul>

		<p>accurate tracking and efficient management of inventory.</p> <ul style="list-style-type: none"> <li>- Leveraged advanced analytics to predict orders and minimize delivery time, resulting in improved supply chain performance and customer satisfaction.</li> <li>- Have implemented low-cost uniform interoperation with dealers</li> </ul>
<p><b>Information Systems 1559</b>  <i>Call centers, Contact centers, Inquiry services, Mobile content delivery, Billing, Taxi services.</i></p>	<p>2006 – 2014</p>	<p><b>Architect, Developer, CEO</b></p> <p>The big system with Mobile and Fixed Lines uplinks for SMS, MMS, USSD, Voice calls, metrics, etc. Content delivery networks. Search engine, high-load, load-balance, clusters, far before AWS. Call-center application, IVR based on database content. Have implemented content delivery system, billing system, service discovery, load balance, connection proxy, smart call routing</p> <ul style="list-style-type: none"> <li>- As an Architect, Developer, and CEO with over a decade of experience, I have successfully led a team in building a complex system with Mobile and Fixed Lines uplinks for SMS, MMS, USSD, Voice calls, metrics, and more. This system also included content delivery networks, a search engine, high-load, load-balance, clusters, all implemented far before AWS.</li> <li>- One of my proudest achievements was the implementation of Google Traffic Jam for our own needs before it was even available through Google. We also developed an online platform for taxi order exchanges long before Uber became a household name.</li> <li>- In addition to these groundbreaking accomplishments, I have also developed complex billing solutions for Mobile content delivery and a platform to maintain an inquiry system nationwide, including a reverse index and tokenization.</li> <li>- My expertise in call-center applications and IVR based on database content allowed me to implement a content delivery system, billing system, service discovery, load balance, connection proxy, and smart call routing. All of these achievements have contributed to my success as a leader in the technology industry, and I look forward to continuing to innovate and make a positive impact...</li> <li>- till Google became public with user-friendly UI...</li> </ul>