# Mikhail M.
# Expert Certified Senior Go Engineer

## SUMMARY

- Certified Senior Go Engineer ( 12 years with Go, 19 years in Software Engineering) with experience in software engineer, team lead and software architect roles. - Master's Degree in Computer Science - Designed and implemented a scalable multi-microservice backend for an enterprise AdTech CRM, integrating 10+ third-party services and streamlining client management operations. - Built and deployed a billing system for a money exchange platform, integrating third-party payment systems and delivering a user-friendly web interface for seamless transactions. - Optimized data processing pipelines by implementing quantiles on streams, enabling real-time analytics and supporting large-scale data operations for scientists and business stakeholders. - Extensive background in data processing and reporting.

## TECHNICAL SKILLS

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| **Main Technical Skills** | Go (14 yr.), React, JavaScript, PostgreSQL |
| **Programming Languages** | C++, Go (14 yr.), Java, JavaScript, Kotlin, Python, Ruby, Scala, Swift, TypeScript, X++ |
| **Java Frameworks** | Apache Spark |
| **Scala Frameworks** | Apache Spark |
| **.NET Platform** | ASP.NET MVC, ASP.NET WebForms, Entity Framework, .Net WCF |
| **C++ Libraries and Tools** | ATL, libxml++, OmniOrb, ulxmlrpcpp |
| **C++ Frameworks** | Boost, MFC |
| **Go Frameworks** | Echo, Gin |
| **Go Libraries and Tools** | Echo, Gin, Gorilla Mux, GORM |
| **Mobile Frameworks and Libraries** | Expo.io |
| **JavaScript Frameworks** | jQuery, React, Vue.js |
| **Android Libraries and Tools** | Kotlin |
| **JavaScript Libraries and Tools** | p5.js, React Hooks, React Native |
| **Python Libraries and Tools** | Robot Framework |
| | Apache Spark |

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|---|---|
| **Data Analysis and Visualization Technologies** | |
| **Databases & Management Systems / ORM** | Apache Spark, AWS ElasticSearch, CockroachDB, FoundationDB, Microsoft SQL Server, MongoDB, Oracle Database, PostgreSQL, Redis |
| **UI Frameworks, Libraries, and Browsers** | CSS, HTML, jQuery |
| **Amazon Web Services** | AWS ElasticSearch |
| **Google Cloud Platform** | Google BigQuery, Google Cloud Services, Google Data Studio |
| **Mail / Network Protocols / Data transfer** | Consul, cURL, GRPC, WebSockets |
| **QA, Test Automation, Security** | Cucumber, Selenium |
| **Virtualization, Containers and Orchestration** | Docker, Kubernetes |
| **Web/App Servers, Middleware** | IBM WebSphere Application Server |
| **Deployment, CI/CD & Administration** | loki |
| **Methodologies, Paradigms and Patterns** | microservices, REST |
| **Message/Queue/Task Brokers** | NATS, RabbitMQ |
| **SDK / API and Integrations** | REST C++ SDK, Winforms |
| **UI/UX/Wireframing** | STL |
| **File Systems, Storage** | XML |
| **Other Technical Skills** | Quantiles on Streams, Redemption, SVG |

## PROJECTS

### Billing for money exchange company

Sep 2023 – Nov 2024

An integration of 3rd party payment systems into existing billing for a money exchange company with neat web ui for end users. A service provides all features for money exchange business with strong background in blockchain tech.

Responsibilities: requirements analysis, documentation, solution design, development, testing, deployment, CI/CD

Tech stack: Go, Postgres, Google Cloud Services, Docker, REST, Vue, C/C++, Stellar, XDR, Microservices.

### Advanced CRM for AdTech

(Sep 2022 – Sep 2023)

Multi microservice backend and a multi client software includes REST and gRPC API dedicated to manage customers and their clients of an AdTech company. This is a core of company's ad tech domain and main products with a lot of integrations for 3rd party services. Microservices are written in Go, DAGs, Spark and related data procedures are written in Scala, Kotlin, Python and hosted on Google Clouds.

Responsibilities: requirements analysis, preparation of technical documentation, preparation of user reference information, design, tasks assignment, development, testing, performance optimizations, quantiles on streams, data preparation for scientists

Tech stack: Go, Kotlin, Python, JavaScript, Scala, Java, Python, Gin, Echo, Chi, Gorilla Mux & Websocket, Gorm, Redis, Spark, Google BigTable & BigQuery, Google Dataproc, HTML, Docker, K8s, REST & gRPC API, Quantiles on Streams.

### Cointize and Portfolios

(Apr 2021 – Sep 2022)

Product auth and Portfolio/Resume verification system based on Symbol blockchain with PoS. Multi microservice backend includes REST API dedicated to manage customers and their clients of a trading company with multiplatform mobile apps for end users. This is a core of trading company with a lot of integrations for 3rd party services. Microservices are written in Go and hosted on Google Clouds, client apps written in TypeScript and React Native.

Responsibilities: requirements analysis, preparation of technical documentation, preparation of user reference information, design, tasks assignment, development, testing, performance optimizations, quantiles on streams, data preparation for scientists

Tech stack: Go, TypeScript, JavaScript, React, React Native, Java, Swift, Objective-C, Websockets, Redis, Google Cloud Services, HTML, Docker, K8s, REST.

### Trading Visual Marks

(Sep 2020 – Mar 2021)

Web-based financial manager and trading client. The client provides modern Web UI and convenient workflow to manage and visualize trading assets, trends and financial info, supports integrations with 3rd-party service providers.

Responsibilities: requirements analysis, preparation of technical documentation, preparation of user reference information, design, tasks assignment, development, automated testing of modules

Tech stack: Go, WebSockets, Redis, ReactJS (Context & Hooks), React Native, Expo.io, TypeScript, JavaScript, HTML5, CSS3.

### Trading Risk Management

(Feb 2020 – Sep 2020)

Client-server software that helps to analyse trading risks and manage them. Web interface shows real-time system updates and provides quick actions to a user. Communication among clients, the server and 3rd party services is done by using WebSockets.

Responsibilities: requirements analysis, preparation of technical documentation, preparation of user reference information, design, tasks assignment, development, automated testing of modules

Tech stack: Go, WebSockets, TypeScript, JavaScript, Expo.io, ReactJS (Context & Hooks), HTML5, CSS3, MongoDB, Google Pub/Sub, Google Cloud Storage, Google BigTable, ChromeDP.

### Slack FAQ

(Sep 2019 – Feb 2020)

A slack application provides a database of questions and answers. The app has convenient interface (UI/UX) based on Slack API. A user can do standard actions on questions and answers: create a new one, answer to, ask for, vote. The app also has management interface for administering and viewing usage statistics. The project uses Go and Gramework on the backend and ReactJS on the frontend.

Responsibilities: requirements analysis, preparation of technical documentation, preparation of user reference information, design, tasks assignment, development, automated testing of modules

Tech stack: Go, Gramework, Nginx, ReactJS, HTML5, CSS3, Java Script, TypeScript, PostgreSQL, Redis, Google Cloud Storage and mail services, Docker.

### Work Coin

(Mar 2018 – Sep 2019)

A simple reward system based on gamification, blockchain and customer reviews. This is a solution to make staff of corporate customers more productive and satisfied. An implemented blockchain is mainly based on PoS consensus type.

Responsibilities: requirements analysis, preparation of technical documentation, preparation of user reference information, design, tasks assignment, development, automated testing of modules

Tech stack: C, C++, Go, Gramework, MS REST C++ SDK, ReactJS, Docker.

### Zeep Data Processing

(Jan 2017 – Mar 2018)

A software complex for processing large amounts of data and calculating given metrics. Also it contains data preparation tools for such systems as: Kafka, Nifi, Hive. User interface allows to specify sources and data receivers, view current state of the system, summary reports on metrics. A lot of different crawlers and data processors were created to gather information from data sources.

Responsibilities: requirements analysis, preparation of technical documentation, preparation of user reference information, design, tasks assignment, development, automated testing of modules

Tech stack: Go, Gramework, Docker, Simple Web UI, Vue.js, PostgreSQL, Python, Java и C, Networks, Multiprocessing, Red Hat Enterprise Linux, Windows Server.

### LBC Community website

(Aug 2016 – Jan 2017)

Classic SPA for a private cycling club. This site provides an opportunity for users to find a company for travel, short trips and choose routes, chat in thematic chat rooms in their spare time, publish travel reports. News scrapers were created to gather news and announces from friendly web sites.

Responsibilities: Analysis of requirements to the application server, preparation of technical documentation, design if micro services, tasks assignment, development and testing

Tech stack: Go, Docker, Micro services, PostgreSQL, CockroachDB, gRPC, Consul, Ubuntu Server.

### VDControl

(Apr 2013 – Jul 2016)

The tool designed to automate management of virtual infrastructure, virtual machines and networks. User interface features allow to simplify and accelerate the allocation of resources and application of basic settings to predefined templates, and, if necessary, to fine-tune them.

Responsibilities: Analysis of requirements, preparation of technical documentation, design, tasks assignment, development, automated testing of modules and UI

Tech stack: Go, Ruby, Cucumber, vSphere/PowerCLI, HTML/CSS/JS/SVG, Selenium, Networks, CentOS, bash, Windows Server, PowerShell.

### Custom Web Chart Component

(Jan 2013 – Apr 2013)

A cross-browser web component for displaying 2D diagrams and graphs using SVG.

Responsibilities: Analysis of requirements, preparation of technical documentation, design, tasks assignment, development

Tech stack: JavaScript, HTML, CSS, SVG.

### Elcomsoft Cloud Explorer

(May 2012 – Dec 2012)

A powerful and convenient tool for extracting, viewing and analyzing of user information from accounts and services in Google with support of secure authentication, encryption of results, multiplatform.

Responsibilities: Analysis of requirements, preparation of technical documentation, creating error reports, design, tasks assignment, development, software development, code inspection and testing

Tech stack: C++, Qt Framework, Qt Creator, QMake, SQL, SQLite, HTML, JavaScript.

### Qt Framework

(Feb 2012 – May 2012)

A cross-platform library designed to develop applications, UI and devices for various purposes, connected by a network and wireless technologies.

Responsibilities: project contributor, Analysis of requirements, preparation of technical documentation, creating error reports, code verification, modules development

Tech stack: Visual Studio, Qt Creator, C++, QBS, SQL, JavaScript, Git, Windows, Linux, FreeBSD.

### WebsitePanel (MSPControl)

(Sep 2011 – Feb 2012)

Open software distributed complex of enterprise level to provide and automate hosting services with the support of private cloud systems. Extensive control over web sites, virtual and physical servers, databases, mail servers, virtual and private networks, billing and integration with third-party services.

Responsibilities: Analysis of requirements, preparation of technical documentation, ensuring the implementation of tasks plan, code verification, design, tasks assignment on software development, software development

Tech stack: Visual Studio 2013, C#, ASP.NET, ASP.NET MVC, ASP.NET WebForms, WCF, HTML, MS SQL, Entity Framework, JavaScript, jQuery, XML.

### Prognoz Platform

(Aug 2010 – Sep 2011)

A business intelligence platform for creating information systems that meet modern and key IT and economic requirements for BI products. The platform includes all the necessary analytical tools for solving management tasks, built-in advanced analytics, modeling, forecasting; interactive diagrams, charts, maps, data loading and analysis, reports; desktop, web and mobile applications.

Responsibilities: Analysis of requirements, preparation of technical documentation, ensuring the implementation of tasks plan, code verification, design, tasks assignment on software development, software development

Tech stack: Visual Studio 2013, STL, MFC, ATL, C++, MS SQL, Oracle, PostgreSQL.

### Microsoft Dynamics AX 2012

(Feb 2010 – Jul 2010)

ERP-application, which allows to manage all areas of the modern company, such as financial management, supply, production management, equipment maintenance and personnel management.

Responsibilities: Analysis of requirements, management of the development team, preparation of technical documentation, ensuring the implementation of tasks plan, code verification, design, tasks assignment on software development, software development

Tech stack: Visual Studio 2010, STL, MFC, ATL, Microsoft Dynamics Development Workspace, X++.

### Noma Virtual Drive

(Sep 2009 – Feb 2010)

Software product for Windows desktop virtualization. It allows users to run their "virtual" desktops from a local template or from a template on a network drive using a pre-installed set of programs on any Windows computer. It includes client and server. The server part of the software includes user management, server-side templates and desktops use the web interface, the client provides connection and desktop virtualization.

Responsibilities: Analysis and revision of requirements, code development on C++, advanced system programming in OC Windows, code analysis of existing projects, unit test development

Tech stack: Visual Studio 2008, STL, MFC, boost, ATL, MadCHook, ASP.NET with C#

### MeetUOnline

A universal software product for business and personal communication of users. It allows to organize on-line meetings, conferences, chats, creation / planning / carrying out presentations with the possibility of providing remote access to the desktop, as well as remote control of the PC. Allows to store data (files, calendars, contacts) on a web server and synchronize them with a local PC, Microsoft Outlook, including plug-ins for IE, Office and Messenger.

Tech lead/System Architect (December 2008 – September 2009)

Responsibilities: management of the development team, generation of software requirements, Creation of application architecture documents, supervision of developers' work, development of plans and time estimates, checking and reviewing code, recruitment and training of new developers

Tech stack: Visual Studio 2005, STL, boost, loki, curl, ulxmlrpcpp, libxml++, Qt, ATL, WTL, Redemption, OmniOrb.

### MeetUOnline

(see the description of the project above)

Developer (August 2006 – December 2008)

Responsibilities: Participation in development of XMl-RPC commands for interaction with the web server, BI analysis, software development, time estimates

- Tech stack: Visual Studio 2005, STL, boost, loki, curl, ulxmlrpcpp, libxml++, Qt, ATL, WTL, Redemption, OmniOrb

## CERTIFICATES:

- Coursera certificate «Go web-services development – language basis»
- Coursera certificate «Golang web-services development, part 2»
- Coursera certificate «Intro to blockchain»
- Coursera certificate «IBM Blockchain Foundation for Developers»

## EDUCATION:

2006 - V.N. Karazina Kharkov National University, Master's Degree, «Computer Science»