Mikhail M.
Expert Senior Software Engineer

SUMMARY

* Master's Degree in Computer Science * 19 years in Software Engineering: Python, Kotlin, Swift, C/C++, and TypeScript in software engineer, team lead, and software architect roles. * Data processing with numpy, pandas, moving pandas, airflow, spark,and nifi. * 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. Good abilities in SCM tools like Git, and in multi-threading and networking. Strong skills in Docker, gRPC; * Cloud service platforms: AWS, Google Cloud, and MS Azure; * Experience with DBMS, PostgreSQL, MySQL, MongoDB; * Certificated knowledge of Blockchain; * Certified Senior Go Engineer (12 years with GoLang).

TECHNICAL SKILLS

Main Technical Skills	Python, Go, TypeScript (3 yr.), PostgreSQL (5 yr.), REST (5 yr.)
AI Tools & Assistants	Grok
Programming Languages	Assembler, Assembly, C, C#, C++, Go, Java, JavaScript, Kotlin, Python, Ruby, Swift, TypeScript (3 yr.), X++
Scala Libraries and Tools	Akka Streams (1 yr.)
Java Frameworks	Apache Spark (1 yr.)
Scala Frameworks	Apache Spark (1 yr.)
.NET Platform	ASP.NET MVC (1 yr.), ASP.NET WebForms (1 yr.), Entity Framework (1 yr.), MS Dynamics 365, .Net WCF (1 yr.)
C++ Libraries and Tools	ATL (1 yr.)
Go Frameworks	Beego, Echo, Gin (5 yr.), Gramework
Go Libraries and Tools	Beego, Echo, Gin (5 yr.), Gorilla Mux (3 yr.), GORM (5 yr.)
C++ Frameworks	Boost, MFC (1 yr.)
AI & Machine Learning	chi, flax, Google JAX, Grok, JAX, LangChain, NumPy, OpenAI, PyTorch, Spacy, TensorFlow, xAI
Python Frameworks	Django, FastAPI, Flask
	Expo.io (2 yr.)

Mobile Frameworks and Libraries	
Python Libraries and Tools	JAX, NumPy, Pandas, PyTorch, TensorFlow
JavaScript Frameworks	jQuery (1 yr.), Node.js (3 yr.)
Android Libraries and Tools	Kotlin
JavaScript Libraries and Tools	React Hooks
Ruby Libraries and Tools	RubyMine (1 yr.)
PHP Frameworks	Zend (5 yr.)
Data Analysis and Visualization Technologies	Apache Airflow, Apache Hive (1 yr.), Apache Nifi (1 yr.), Apache Spark (1 yr.), LightGBM, moving pandas, Pandas
Databases & Management Systems / ORM	Aerospike, Apache Hive (1 yr.), Apache Spark (1 yr.), AWS ElasticSearch (1 yr.), Bigtable (1 yr.), CockroachDB (1 yr.), FoundationDB, Memcached, Microsoft SQL Server (1 yr.), MongoDB (1 yr.), MySQL, Oracle Database (1 yr.), PostgreSQL (5 yr.), Redis
UI Frameworks, Libraries, and Browsers	Cross-platform UI, CSS (5 yr.), HTML (5 yr.), jQuery (1 yr.)
Cloud Platforms, Services & Computing	AWS, Azure, GCP (1 yr.)
Amazon Web Services	AWS ElasticSearch (1 yr.)
Azure Cloud Services	Azure DevOps Server (ex TFS Team Foundation Server)
Google Cloud Platform	Dataproc (1 yr.), Google BigQuery (1 yr.), Google Cloud Pub/Sub (1 yr.)
Platforms	Aerospike, Microsoft Power Platform
Web/App Servers, Middleware	Azure DevOps Server (ex TFS Team Foundation Server), Kitura
Scripting and Command Line Interfaces	Bash, PowerCLI, PowerShell
Operating Systems	Centos, FreeBSD, Linux, macOS, Windows
Mail / Network Protocols / Data transfer	Consul (1 yr.), fasthttp, GRPC, NAT, Networking, WebSockets (3 yr.)
Methodologies, Paradigms and Patterns	DAG (Directed Acyclic Graph), Design patterns, Observer, REST (5 yr.)
Virtualization, Containers and Orchestration	Docker (5 yr.), Kubernetes (2 yr.), Qemu
SDK / API and Integrations	FastAPI, Google Maps API (3 yr.), OpenAPI, REST C++ SDK (1 yr.), Swagger

Version Control	Git (5 yr.), Mercurial, SVN
Logging and Monitoring	Grafana, Prometheus, Zabbix
Third Party Tools / IDEs / SDK / Services	Microsoft Visual Studio Code (5 yr.), Qt Creator (1 yr.), Qt Framework, RubyMine (1 yr.), Visual Studio
Message/Queue/Task Brokers	NATS, RabbitMQ
QA, Test Automation, Security	Selenium, TFS
UI/UX/Wireframing	STL (1 yr.)
File Systems, Storage	XML (1 yr.)
Other Technical Skills	Boosting (1 yr.), ChromeDP (1 yr.), Code Blocks, fasthhtp, logrus, Multi-threading, Quart, Tesseract OCR, zap

WORK EXPERIENCE

Senior Software Engineer, NDA

(Jan 2024 – July 2025)

Project Summary: Billing for Media Publishing Company. Integration of 3rd party payment systems into existing billing for a media publishing company, providing features such as receipt verification, product activation, subscription tracking, notifications, and a dashboard for support and management teams.

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

Technologies: Go, Postgres, Google Cloud, Docker, REST, Angular, Stripe, Google In-App Purchases, Apple In-App Purchases.

Taxi Ordering Portal

(March 2023 – Dec 2023)

Project Summary: a taxi ordering service in a Middle East country with a web portal for clients and a management team, plus multiple microservices as backend. A web portal provides dedicated areas for passengers, drivers, management team. Passengers are able to choose a driver and desired vehicle, drivers are able to register, add vehicles, driving licences, and other required documents, and the management team is able to provide support and financial services. Cost calculation, live tracking, and map services are also available. Besides traditional features, client apps for passengers and drivers provide knowledge base features based on modern AI technologies: Q&A, guides, and chat support agents.

Main responsibilities:

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

Programming languages, tools, and technologies: Python, Django, DRF, FastAPI, LangChain, spaCy, Postgres, Google Maps, AWS, gRPC, REST, TypeScript/JavaScript, React.

Advanced CRM for AdTech

(Feb 2022 – Mar 2023)

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

Main 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

Programming languages, tools and technologies: Python, Flask, Airflow DAG, Go, Kotlin, JavaScript, Scala, Java, Gin, Echo, Chi, Gorilla Mux & Websocket, Gorm, Redis, Spark, Google BigTable & BigQuery, Google Dataproc, HTML, Docker, K8s, REST & gRPC API, Quantiles on Streams, React.

Senior Software Engineer, Project Portfolio Management Portal

(Feb 2021 – Feb 2022)

Summary: Project Portfolio Management Portal for the petroleum industry that manages various project types and programs, providing rich UI for analytical reports, and mobile tools for field data gathering.

Responsibilities: Requirements analysis, technical documentation, user reference information, design tasks assignment, development, and automated testing.

Technologies: Go, Gin, Gorm, Python, Flask, React (Context & Hooks), React Native, ReactJS, Expo.io, TypeScript, Swift, Java, HTML5, CSS3, PostgreSQL, Redis, ElasticSearch, Docker, REST API, RabbitMQ, FoundationDB.

Senior Software Engineer, Trading Visual Marks

(Sep 2020 – Jan 2021)

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

Responsibilities: Requirements analysis, technical documentation, user reference information, design tasks assignment, development, and automated testing.

Technologies: Go, WebSockets, Redis, ReactJS, Expo.io, TypeScript, JavaScript, HTML5, CSS3.

Senior Software Engineer, Trading Risk Management

(Feb 2020 – Sep 2020)

Summary: Client-server software for trading risk management with real-time system updates and quick action features through Web UI.

Responsibilities: Requirements analysis, technical documentation, user reference information, design tasks assignment, development, and automated testing.

Technologies: Go, WebSockets, TypeScript, JavaScript, Expo.io, ReactJS, HTML5, CSS3, MongoDB, Google Pub/Sub, Cloud Storage, BigTable, ChromeDP.

Senior Software Engineer, Slack FAQ

(Sep 2019 – Feb 2020)

Summary: The Slack application manages a database of questions and answers, with a management interface for administration and viewing usage statistics.

Responsibilities: Requirements analysis, technical documentation, user reference information, design tasks assignment, development, and automated testing.

Technologies: Go, Nginx, ReactJS, HTML5, CSS3, JavaScript, TypeScript, PostgreSQL, Redis, Google Cloud Storage and mail services, Docker.

Senior Software Engineer, Work Coin

(Mar 2018 – Sep 2019)

Summary: Reward system using gamification, blockchain, and customer reviews to improve corporate staff productivity and satisfaction.

Responsibilities: Requirements analysis, technical documentation, user reference information, design tasks assignment, development, and automated testing.

Technologies: C, C++, Go, MS REST C++ SDK, ReactJS, Docker.

Senior Software Engineer, Zeep Data Processing

(Jan 2017 – Mar 2018)

Summary: A Software complex for processing large data volumes, calculating metrics, and preparing data for systems like Kafka, NiFi, and Hive, with a UI for system management and reporting.

Responsibilities: Requirements analysis, technical documentation, user reference information, design tasks assignment, development, and automated testing.

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

Senior Software Engineer, LBC Community website

(Aug 2016 – Jan 2017)

Summary: Classic Single Page Application for a private cycling club, allowing members to organize and communicate about trips, routes, and news.

Responsibilities: Analysis of requirements, preparation of technical documentation, microservices design, task assignment, development, tand esting.

Technologies: Go, Docker, Microservices, PostgreSQL, CockroachDB, gRPC, Consul, Ubuntu Server.

Senior Software Engineer, VDControl

(Apr 2013 – Jul 2016)

Summary: The tool is designed to automate the management of virtual infrastructure, virtual machines, and networks. User interface features allow for simplifying and accelerating 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.

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

Senior Software Engineer, Custom Web Chart Component

Duration: Jan 2013 – Apr 2013

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

Responsibilities: Analysis of requirements, preparation of technical documentation, design, task assignment, and development.

Technologies: JavaScript, HTML, CSS, SVG.

Senior Software Engineer, Elcomsoft Cloud Explorer

Duration: May 2012 – Dec 2012

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

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

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

Senior Software Engineer, Qt Framework

Duration: Feb 2012 – May 2012

Summary: 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, creation error reports, code verification, and module development.

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

Senior Software Engineer, WebsitePanel (MSPControl)

Duration: Sep 2011 – Feb 2012

Summary: Open software distributed complex of enterprise-level to provide and automate hosting services with the support of private cloud systems. Extensive control over websites, 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 the task plan, code verification, design, and tasks assignment on software development.

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

Senior Software Engineer, Prognoz Platform

Duration: Aug 2010 – Sep 2011

Summary: 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 the task plan, code verification, design, and tasks assignment on software development.

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

Senior Software Engineer, Microsoft Dynamics AX 2012

Duration: Feb 2010 – Jul 2010

Summary: 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, and task assignment on software development.

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

Senior Software Engineer, Noma Virtual Drive

Duration: Sep 2009 – Feb 2010

Summary: 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.

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

Tech Lead/System Architect, MeetUOnline

Duration: Dec. 2008 – Sep. 2009

Summary: A universal software product for business and personal communication of users. It allows organizing online meetings, conferences, chats, creating / 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.

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.

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

Engineer, MeetUOnline

Duration: Aug. 2006 – Dec. 2008

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

Technologies: Visual Studio 2005, STL, boost, Loki, Curl, ulxmlrpcpp, libxml++, Qt, ATL, WTL, Redemption, OmniOrb.

EDUCATION

National University, Master's Degree, «Computer Science» (2001 - 2006)

CERTIFICATION

- **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»**