

# Alexei Samokvalov

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Home page	<a href="https://sam701.com/profile">https://sam701.com/profile</a>
Education	Computer science (diploma)
Focus Areas	<ul style="list-style-type: none"><li>• Data Platform Engineering</li><li>• Cloud Engineering (GCP, AWS, Azure, edge, on-premises)</li><li>• Cloud and data center architecture</li><li>• DevOps</li></ul>
Social Networks	<ul style="list-style-type: none"><li>• <a href="https://www.linkedin.com/in/sam701">https://www.linkedin.com/in/sam701</a></li><li>• <a href="https://github.com/sam701">https://github.com/sam701</a></li></ul>

## Skills

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Cloud Platforms	Google Cloud Platform, Amazon Web Services, Azure, OVHCloud
Programming Languages	Go (golang), Zig, Rust, JavaScript, Python, Java, Elixir / Erlang
Infrastructure as Code (IaC)	Terraform, NixOS, Ansible, Salt
Cloud Infrastructure	Docker, Kubernetes, AWS ECS, Nomad, Ansible, NixOS
Continuous Delivery (CI/CD)	Azure DevOps, Github actions, Gitlab pipelines, concourse CI
Monitoring / Alerting	Prometheus, Grafana, Alertmanager, Victoria Metrics, GCP Alerting, OpsGenie, PagerDuty, Thanos
Networking	Load balancing, DNS, Firewalls (iptables, nftables)
Log Processing	Elasticsearch, Vector, GCP Logging
HashiCorp Stack	Consul, Vault, Nomad, Terraform, Packer
Messaging / Queues	Azure Storage Queues, AWS SQS, AWS Kinesis, AWS Event Bridge, Kafka, MQTT, temporal.io, NATS, RabbitMQ
Relational Databases	PostgreSQL, MySQL, Oracle, Sqlite
NoSQL Databases	Apache Cassandra, DynamoDB, Redis, MongoDB, Elasticsearch, Rocksdb
Techniques	Microservices, Event-Driven Architectures, CQRS, Event Sourcing, Feature Toggles, Trunk-based Development, Chaos Engineering, Resilience Engineering

## Projects

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<b>Since 02/2024</b>	<b>Resilient Infrastructure for highly available Blockchain Services</b> <i>DevOps Engineer</i> at iVerse Vision
Tasks	<ul style="list-style-type: none"><li>• Setting up infrastructure for highly available blockchain services in GCP</li></ul>
Technologies	GCP, Terraform, MongoDB Atlas, MySQL, OVHCloud, OAuth, IAM
<b>01/2022 – 12/2023</b>	<b>Vehicle Data Acquisition - Deep Learning Infrastructure</b> <i>DevOps Engineer, Big Loop</i> at CARIAD SE

- Tasks
- Designing and implementing Big Loop foundation platform
  - Designing and setting up highly available and scalable MQTT brokers
  - Setting up kubernetes cluster in Azure
  - Setting up networking for multiple AKS clusters
  - Securing kubernetes cluster using service mesh
  - Creating CI/CD and data pipelines
  - Maintaining Mender (OTA) in AKS
  - Designing and implementing distributed loosely coupled services using temporal.io
- Technologies
- Go (golang), Python, Azure, Kubernetes (AKS), linkerd, temporal, Azure DevOps, HiveMQ, Kafka, redpanda, Spark, Hive Metastore, Trino, JupyterHub, MLFlow, terraform, DCGM metrics collection, emqx, mender, chaos engineering

## 02/2019 – 12/2021 **Consulting on Cloud Migration**

*Cloud Consultant / DevOps Engineer*  
at ProSiebenSat.1 Tech Solutions GmbH

- Tasks
- Supporting multiple teams on their way to AWS
  - Providing concepts and setting up logging and monitoring infrastructure for services in AWS and on-premise
  - Supporting operations and development departments on their movement to DevOps culture
  - Setting up cross account networking
  - Developing cross service authorization concept
- Technologies
- Amazon Web Services (ECS, Fargate, VPC, Lambda, Direct Connect, Transit Gateway, Route53, API Gateway, Cognito, Secrets Manager, Security Hub, etc.), Terraform, Istio, Python, Bash, Docker, Vector.dev, Filebeat, Logstash, Elasticsearch, Elastic Cloud, FileBeat, Ansible, Prometheus, Grafana, gitlab, Azure, Azure AD

## 07/2018 – 12/2018 **Consulting on Cloud Based AI Projects**

*Cloud Consultant*  
at Siemens AG

- Tasks
- Creating technical architecture concepts and PoC
  - Analysis and architecture of a service for machine learning (ML) inferences in AWS
  - Analysis of pattern matching algorithms and their application in cloud services
  - Analysis of approaches to distributed load balancing
  - Setup of distributed test system with ansible and packer
- Technologies
- Amazon Web Services, Tensorflow, R, python, Docker, Ansible, Packer, Terraform, gitlab, Java Boot, Spring 5, WebFlux

## 07/2017 – 06/2018 **Creating access control system in AWS for secured objects**

*DevOps Engineer*  
at BlueID GmbH

- Tasks
- Creating technical architecture concepts
  - Creating a docker cloud cluster based AWS ECS
  - Implementing micro services in Go
  - Implementing OAuth2 server with standard and custom flows
  - Implementing deployment pipelines in gitlab with terraform
  - Cloud infrastructure setup with ansible

Technologies AWS (VPC, SG, ECS, ECR, EC2, CloudWatch, SSM, Aurora), Go (golang), Docker, terraform, packer, nomad, ansible, gitlab, concourse CI, prometheus, AlertManager, OpsGenie, OAuth2, Elasticsearch, Upsource, Agile development

### **07/2015 – 06/2017 Car Dealer Stock Management System in AWS**

*DevOps Engineer*

at AutoScout24 GmbH / Online Car Platform

- Tasks
- Design and architecture of a statistics engine for car dealers
  - Analysis and migration of systems from an internal data center into AWS cloud
  - Migrating existing applications from data center into AWS cloud
  - Implementing micro services in Scala
  - Implementing deployment pipelines
  - Implementing micro service monitoring using DataDog, Kibana, Elasticsearch, CloudWatch
  - Creating Ops tools in Go

Technologies AWS (S3, EC2, CloudFormation, CloudWatch, Kinesis Stream/Firehose, Lambda, DynamoDB, RDS, IAM, ECS, SSM), Scala, Play Framework, Apache Kafka, Aurora DB, Docker, Ruby, Elasticsearch, Kibana, Go.CD, Github, OpsGenie, DataDog, Agile development

### **01/2014 – 05/2015 Web App: User Profile and Company Settings**

*Technical team lead, scrum master*

at Mercateo Services GmbH / Commerce

- Tasks
- Technical team lead
  - Analysis and design of business requirements
  - Design of REST interface
  - Setup of DevOps pipeline
  - Design and implementation of REST services with Jersey
  - Implementation of user interface with angularJS
  - Implementation of backend business services

Technologies Scrum, Java, JEE, JavaScript, AngularJS, HATEOAS, Mocha, PhantomJS, Git, JAX-RS, REST, Jersey Framework, JUnit, Node.js, Hibernate, JPA, Tomcat, Spring Framework, Eclipse, Oracle, Apache Cassandra

### **01/2013 – 12/2013 B2B Basket**

*Architect / Software Engineer*

at Mercateo Services GmbH / Commerce

- Tasks
- Domain design
  - Connecting external service suppliers via OCI and cXML
  - Implementation of OAuth2 interface for external service suppliers
  - Implementation of order inject interface
  - Maintenance of entire basket component

Technologies Java, JEE, JavaScript, AngularJS, OCI, cXML, OAuth2, NoSQL, Hibernate, JPA, JUnit, Git, Tomcat, Spring Framework, Guice, Eclipse, Oracle, Apache Cassandra, Selenium

### **09/2012 – 12/2012 Combinatorial Basket Optimization**

*Senior Software Engineer*

at Mercateo Services GmbH / Commerce

- Tasks
- Design of cluster microservices
  - Implementation of product group user interface
- Technologies
- Java, JUnit, JavaScript, JQuery, Git, Tomcat, RPC, Tomcat, Microservices, Eclipse, Oracle
- 08/2011 – 10/2012**    **Android Game: Zling**  
*Architect / Software Engineer*  
 at Private Project
- Tasks
- Game design <http://zling.de>
  - Implementation of asset pipeline
  - Implementation of server component on CentOS with go (golang)
  - Coordination of theme designer, musician and programming
- Technologies
- Java, OpenGL ES, Go, Python, Apache Ant, Eclipse, Blender
- 07/2011 – 08/2012**    **Article Matching Engine**  
*Architect / Software Engineer*  
 at Mercateo Services GmbH / Commerce
- Tasks
- Requirement analysis for article grouping
  - Design and implementation of component „Article Matching Engine“
  - Processing article catalogs in BMEcat format
  - Setup of DevOps pipeline
  - Implementation of monitoring component
- Technologies
- Java, Apache Ant, JUnit, NoSQL, Git, BMEcat, Hibernate, JPA, Microservices, Eclipse, Oracle, PostgreSQL
- 01/2010 – 06/2011**    **Web Based Patent Management System**  
*Architect / Software Engineer*  
 at pol GmbH / IT Service Provider
- Tasks
- Requirement analysis
  - Design and Implementation of user interface in GWT with Sencha GXT
  - Setup of DevOps pipeline with Jenkins/Hudson
  - Testing linux cluster administration
- Technologies
- Java, J2EE, GWT, Sencha GXT, REST, Git, Hibernate, JPA, TestNG, Arch Linux, Jenkins, Microsoft SQL Server, Continuous Integration, Eclipse
- 10/2008 – 12/2009**    **Web App: Price Management for Sales Department**  
*Architect / Software Engineer*  
 at pol GmbH / IT Service Provider
- Tasks
- Requirement analysis of price management tools
  - Design and Implementation of web UI with jWic, Velocity
  - Implementation of persistence tier in backend with Hibernate
  - Creating Reports with JasperReports
- Technologies
- Java, J2EE, Apache Maven, jWic, Velocity, JasperReports, Hibernate, JPA, Tomcat, JavaScript, Eclipse
- 09/2007 – 09/2008**    **Authentication Server**  
*Senior Software Engineer*  
 at Softcon AG / IT Service Provider
- Tasks
- Design of authentication system based on PKCS12 certificates
  - Implementation of authentication server

- Connecting authentication server to backend with JNI

Technologies Java, Derby, Bouncycastle, Tomcat, JMS, JNI, C++, SVN, Eclipse, Oracle

**03/2006 – 08/2007 Mobile Payment System**

*Softwareentwickler*

at Softcon AG / IT Service Provider

Tasks

- Implementation of Mobile Payment System on Windows CE devices
- Connecting of bluetooth portable printers on mobile devices
- Implementing backend

Technologies Windows CE, Scrum, Derby, Bluetooth, Tomcat, SVN, PKCS12, Eclipse, Microsoft Visual Studio

**08/2004 – 02/2006 Inventory Software**

*Softwareentwickler*

at Softcon AG / IT Service Provider

Tasks

- Implementation of separate components in C++
- Maintenance of entire inventory software suit
- Maintenance of PL/SQL scripts

Technologies C++, MFC, Microsoft Visual Studio, Oracle, SQL, PL/SQL

## Languages

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- German (fluent)
- English (fluent)
- Russian (native speaker)
- Lithuanian (basics)