Maksim **Malkov**

SENIOR SOFTWARE ENGINEER

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"Great things start from small beginnings."

Summary

Backend engineer with more than 5 years of experience in developing and enhancing cloud-based solutions with microservice architecture. Participated in projects from different business domains like "Business Information & Media", "Energy", "Life Sciences & Healthcare", and "Software & Hi-Tech" as well as worked together with international teams.

In my work, I love the most 3 things: teamplay, learning, and puzzles. I enjoy helping colleagues and sharing knowledge as well as being on the receiving side. Learning new technologies, tools, and methodologies make my work interesting even after all these years. As for the puzzlers, it is always an opportunity to look at things from the new side as well as make new contacts.

Skills

DevOps	AWS, Azure, Docker, Kubernetes, Helm, Terraform, Jenkins, Github, GitLab, Prometheus, Alert Manager, Grafana, Kibana, Istio, Jager, Apache Kafka, ArgoCD,Apache Airflow
Back-end	Spring, Spring Boot, Spring WEB, Spring DATA, Spring Cloud, Spring Security, Hibernate, Micrometer, Cucumber, JUnit, Mokito, Gradle, Maven, Thymeleaf, Thymeleaf, Flyway, Lombok, REST API, Lagom, Swagger, Postman
Database	MySQL, PostgreSQL, MongoDB, Redis, DynamoDB, CosmosDB, Elasticsearch, Microsoft SQL Server, OracleDB
Programming	Java, Python, Groovy, Javascript
Languages	Russian, English, Japanese

Certificates

2021-2024 **Microsoft Certified: Azure Developer Associate**, Microsoft

2020-2023 **AWS Certified Developer – Associate**, Amazon Web Services Training and Certification

Experience

Epam Systems (Georgia) :: EV - Energy   *Tbilisi, Georgia*

SENIOR SOFTWARE ENGINEER   *Mar 2022 - Present*

- Optimized Spring Boot application, and Python DAG Operator usage of Azure Key Vault by introducing caching that reduced overall loads on the cloud resource.
- Assisted clients with custom Airflow DAG configuration for community Python library integration.
- Enhanced existing Azure DevOps pipeline to enable parallel deployments on production environments which speeds up an overall delivery time.
- Optimized logging configuration for several Java microservices which reduced log storage expenses by up to 90%.
- Implemented liveness probe for pull-based microservices which solved issues with dead-alive k8s pods. Conducted KT session for the team which resulted in all such services inheriting the approach.
- Successfully played SRE role in the team. As a part of the SRE activity resolved the SLO service latency compliance(target was set to 2 sec) issue by optimizing service calls via applying asynchronous calculations and caching.

Epam Systems (Russia) :: EV - Energy   *St.Petersburg, Russia*

SENIOR SOFTWARE ENGINEER   *Mar 2021 - Mar 2022*

- Implemented behavior-driven tests for a Python service using the Behave(Cucumber for python) tool and Gherkin syntax.
- Enhanced Azure DevOps CI/CD pipeline in order to automate running behavior-driven test scenarios based on Cucumber(BDD style testing library).
- Implemented and automated service observability alerts and dashboards using Azure DevOps and Azure Monitor: Application Insights.
- Enhanced CI/CD pipeline for Airflow DAGs deployment in order to enable environment-independent deployments.
- Conducted security analysis for a Java service using OPSWAT, and WhiteSource tools with all high-priority security concerns resolved.

Epam Systems (Russia) :: Business Information and Media   *St.Petersburg, Russia*

SENIOR SOFTWARE ENGINEER   *Nov 2020 - Feb 2021*

- Developed a REST API microservice that integrates the system with 3rd party marketplace API.
- Developed a REST API microservice that integrated AWS S3, and PostgreSQL. The service provides API for working with files stored in AWS S3.
- Developed an ETL job that uploads the archives from AWS S3 and then updates data in PostgreSQL, and 3rd party marketplace.
- Integrated developed microservices with Netflix's Eureka(as service discovery), and Eiddo(as configuration server).

Epam Systems (Russia) :: Life Sciences & Healthcare
St.Petersburg, Russia

Senior Software Engineer *Sep 2020 - Nov 2020*

- Developed a REST API microservice using the Lagom framework.
- Integrated developed microservice with AWS S3, AWS DynamoDb, and AWS STS in order to implement business requirements.
- Implemented IaC(Infrastructure as code) approach for required AWS cloud resources using Terraform by HashiCorp.
- Implemented CI/CD pipeline for back-end services and extended CD pipeline front-end service using Jenkins.

Epam Systems (Russia) :: Business Information and Media
St.Petersburg, Russia

Software Engineer *Jul 2019 - Sep 2020*

- Enhanced custom CI/CD pipeline tools(written in Python, and Groovy) in order to provide an ability to mock dependencies during the performance test execution stages which lowered overall system load during services deployment.
- Migrated customer data from on-premise Microsoft SQL Server to AWS RDS for MySQL using AWS Database Migration Service and Vault by HashiCorp.
- Developed a microservice that provides HTML page contents translation API via integration with Azure translation service API.
- Enhanced custom metrics processing service in order to provide development teams with the ability to (un)subscribe to certain alerts using simple yaml-based configurations.

Epam Systems (Russia) :: Business Information and Media
St.Petersburg, Russia

Software Engineer *May 2019 - Jul 2019*

- Enhanced API Gateway logout workflow session cookies clean up and an appropriate redirection.
- Configured API Gateway with an authentication module provisioning pipeline to a k8s cluster. Configured automation pipeline for AWS Elasticache::Redis provisioning in order to support the authentication module.
- Enhanced microservices observability by introducing relevant Grafana dashboards.
- Conducted a series of automated performance tests using Jmeter in order to capture microservice RPS limits.

Epam Systems (Russia) :: Business Information and Media
St.Petersburg, Russia

Software Engineer *Oct 2018 - Apr 2019*

- Enhanced microservices interaction testing by implementing cloud contracts for several microservices using Spring Cloud Contracts.
- Configured custom Prometheus alerts for specified microservices and enhanced Jenkins pipeline for automatic alert provisioning.
- Implemented HATEOAS REST APIs for several developed microservices using Spring HATEOAS.
- Enhanced microservices performance by caching via integrating those with Ehcache.

Epam Systems (Russia) :: Software & Hi-Tech
St.Petersburg, Russia

Software Engineer *Aug 2018 - Sep 2018*

- Implemented AWS Glue ETL job for converting data from RDS(Oracle) to CSV format into S3.
- Implemented event logging for data updates in DynamoDB using AWS Lambda.
- Implemented ETL job which extracts data from AWS S3 and stores it in AWS DynamoDB after data transformation is completed.

Epam Systems (Russia) :: Software & Hi-Tech
St.Petersburg, Russia

Software Engineer *May 2018 - Oct 2018*

- Enhanced user roles in back-end applications using Spring Security.
- Migrated database to the updated schema using Frontlyway.
- Implemented CI pipeline for Front-end and Back-end applications using Jenkins.

Education

Peter the Great St.Petersburg Polytechnic University
St.Petersburg, Russia

Master's degree in Physics *Sep 2016 - Jun 2018*

Peter the Great St.Petersburg Polytechnic University
St.Petersburg, Russia

Bachelor's degree in Physics *Sep 2012 - Jun 2016*