

# Alexey Shmykov

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## Software engineer (Java/full-stack)

### Summary

- Main stack: Java, Spring, PostgreSQL, Docker, CI/CD, RabbitMQ
- Secondary stack: TS, React, Html, Scss
- Experienced with cloud (Kubernetes, Helm, GCP), GitOps practices
- Experienced with configuration and automation tools (Ansible)
- Constant learner, dive deep to technologies, look for challenges

### Work experience

#### Java Developer

Smartsoft

Apr 2020 - Present

- Design and development of Spring microservices, work with Postgres databases and message brokers
- Code documentation (Swagger)
- Creation of CI/CD pipelines (Jenkins, Bash) and deployment configs (Docker, Helm, Openshift).
- Support and extend existing microservices
- Frontend development (React)
- Code quality (Unit tests, Sonarqube)

Participated in company's qualification courses as a lector. Created few lessons about advanced PostgreSQL and basics of NoSQL.

Noticeable projects are:

1. **Repository parser (code analysis)**. I've designed and developed services with complex parsing logic to parse xml, yaml, sql, e.t.c. There are ~20 different parsing types. I used Strategy pattern to make this application easily extendable for new parsing tasks. Result: It allows to gather information about different types of projects (repositories) in the customer's organization, check config files, create custom code checks, reduce code review time.
2. **Administrative tool (backend + ui)**. Allows customers to administrate and use a document storage application without having knowledge of SQL and technical part of it. Backend validates the data from an administrator and makes sure no bad data is saved to a configuration database and UI provides convenient access to all the tools of this application
3. **Testing protocol document generator**. Saves time of the QA team. It retrieves data from the testing database and substitutes to .docx protocol. Result: protocol creation time have reduced from 20 minutes to 1 minute. A QA engineer just has to pass two parameters to this service to get a generated document instead of manually looking for the data in multiple tables.
4. **Doc2Pdf converter**. Service runs LibreOffice and OpenOffice to convert doc, docx, rtf files to pdf. The service is created to replace a service with MS.Office converter. Result: Our company don't have to pay for Microsoft license, and the switch from Windows to Linux reduced the maintain cost, as Linux

requires less resources. The old Windows service was running on bare-metal, now the Linux service is running in Openshift.

## Pet projects

I study new technologies by implementing them in my project.

1. Currency converter. Converts currencies according to Russian Central Bank rates, stores the history and supports JWT role-based authentication and authorization. Link: <https://github.com/CPTMUTCHELL/cbr-currency-converter>
2. Currency converter-ui. UI to use converter's API. Link: <https://github.com/CPTMUTCHELL/cbr-currency-converter-ui>

Internet link: <https://cbr.cptmutchell.xyz/>

Features:

- IAC. K3s cluster and Jenkins setups are automated (Ansible)
- TLS support (Traefik + Let's encrypt)
- CI/CD (Jenkins + Helm)
- Deployed on GCP. GCP is configured with Terraform
- Easy to run locally (Docker-compose)
- RabbitMQ support, documented API (Swagger)

## Education

### **Moscow Power Engineering Institute (Technical University)**

Master's degree, Energy Management and Systems Technology/Technician

Sep 2019 - Jul 2021

- Relay protection algorithms (Java 1 year). Link: <https://github.com/CPTMUTCHELL/Relay-protection-algorithms>
- GOOSE parser (Java 6 month). Link: [https://github.com/CPTMUTCHELL/GOOSE\\_Parser](https://github.com/CPTMUTCHELL/GOOSE_Parser)
- Stm32 microcontroller programming (C HAL 6 month)
- ML. Neural networks, optimization algorithms (Python, Tensorflow, Keras 6 months). Link: <https://github.com/CPTMUTCHELL/ML>

### **Kazan State Energy University**

Bachelor's degree, Electrical, Electronics and Communications Engineering

Sep 2015 - Jul 2019

## Skills

Backend: Java (8-17), Spring Boot, Spring Security, PostgreSQL, RabbitMQ, Kafka, Nexus, Maven, Rest, Hibernate, Junit, Mockito, Jacoco, Swagger

Frontend: Typescript, Webpack, React 16.8, Scss, Html, Material UI

DevOps: Docker, Jenkins, Helm, Kubernetes, GCP, Ansible, Linux, Bash, Traefik, Nginx, Terraform