# Sergei Chudov Senior Software Engineer

## Introduction

I'm a software engineer with 5 years of experience. Now I am in Yerevan and ready for relocation or remote job.

Currently I am learning new technologies, upgrade my knowledge in software development and learning English.

## **Contact Information**

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# Work Experience

### Senior Software Engineer

Bostongene, Yerevan, Armenia - (Jun 2022 - Present)

- I participate in creating internal projects to optimize the work of internal customers. I am responsible for the stability of services running in Kubernetes.
- Achievements:
  - Saved one of the key databases by writing a script netfs\_unlker. This
    action preserved 2 weeks of work for the teams working with these
    databases.
  - Participated in gathering requirements and designing the architecture, as well as the subsequent development of this service to facilitate policy annotation billing.

- Implemented best practices in our team's development process, including tests, linters, and formatters, which helped increase our productivity.
- Deployed and maintained multiple production services in a Kubernetes environment, including Airflow, adapting to changing requirements and system loads.
- In the shortest possible time (4 days), I developed a production library with tests and CI/CD, which included a small language for converting patient parameters and their relationships into a machine-readable format.

#### • Responsibilities:

- Moving bioinformatics algorithms to production
- Gathering client requirements and converting them into code
- Maintaining the functionality and monitoring services in Kubernetes
- Writing and supporting production Python packages
- Implementing frontend, backend, and pipelines in existing and new projects
- Writing Helm charts and setting up CI/CD (Concourse) for projects

#### • Stack:

- Python (FastAPI, SQLAlchemy)
- Linux
- TypeScript (JavaScript, React, Redux)
- Docker, Kubernetes, Helm, Concourse, gitlab ci
- RabbitMQ, Redis, PostgreSQL, Neo4j, Apache Kafka
- Software Design, Software Infrastructure, Software Systems Engineering, Software Development

### Middle Software Engineer

 $U\!S\!S\!C\ L\!dt.,$  Yekaterinburg, Russia - (Oct 2019 - Mar 2022)

- Participated in the development of a system for detecting and preventing information security incidents in industrial networks.
- Achievements:
  - Simplified the implementation of user authorization, which reduced the number of bugs in this functionality.
  - Rewrote the complex and frequently breaking master-master interaction functionality, and covered it with tests, significantly reducing bugs.

- Developed a backup service for main databases Mysql, Postgres.
- Implemented index rotation in Elasticsearch.
- Implemented a tool for generating TypeScript clients based on OpenAPI specifications. This reduced memory usage for these clients and improved the readability of method signatures on the client side.

#### • Responsibilities:

- Designed microservices in python
- Optimized SQL in MySQL, PostgreSQL
- Developed and supported of authorization
- Wrote Docker images to build from source
- Wrote unit and integration tests
- Edited frontend when I didn't want to distract the frontend developers

#### • Stack:

- Python (aiohttp, asyncio, FastAPI, Flask, SQLAlchemy)
- Linux
- Docker, Jenkins
- Elasticsearch, Mysql, Postgres, RabitMQ
- TypeScript (Angular, Javascript)

### Trainee ML Engineer

NPO Avtomatiki, Yekaterinburg, Russia - (Mar 2019 - May 2019)

- Implemented prototype of system that allows you to identify people with high accuracy in real time, the data is created by a video camera.
- Responsibilities:
  - Trained additional parts of YOLOV3 model
  - Optimized of YOLOV3 performance on weak hardware
  - Selected a ML model for object recognition

#### • Stack:

- Python, tensorflow, keras, sklearn, Multiprocessing on Python

# Skills

## Development

Python - FastAPI - aiohttp - Flask - Docker - Kubernetes - Concouse - Linux - asyncio - MySQL - PostgreSQL - Redis - RabbitMQ - Elasticsearch - Neo4j - Typescript - Angular - React - Kafka

## Contributions

- aio-pika
- ruff
- chat-langchain

# **Pet-Projects**

- $\bullet$  starlette-responses-kit extension containing custom responses for starlette.
- netfs\_unlker netfs\_unlcker is a Rust library and command-line interface designed to provide unlock 'fcntl' shared locks in netapp's

# Languages

#### Russian

Native speaker

### English

В1

# Education

### Ural State Technical University

(Bachelor of Science (Unfinished))

Sep 2015 - Oct 2017 Radiophysicist

### (Bachelor of Engineering)

Oct 2017 - Jul 2020 Design and Technology of Electronic Facilities

# Coursera

 $\begin{array}{c} {\rm Aug~2020~Aug~2020~Algorithms,~Part~I} \\ {\rm Aug~2021~Sep~2021~Introduction~to~Machine~Learning} \end{array}$