Kyryll Puchkov

Software Engineer | Schaffhausen, Switzerland | S permit

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EXPERIENCE

TINKOFF | SOFTWARE DEVELOPER
September 2021 – June 2022

- → Using own *pipeline* framework, created a vast *microservice* infrastructure with integration of *automated testing* service.
- → Took part in *SRE* team work, enhancing server *reliability* and *overload* resistance; maintained *legacy code review* to decrease incidents number.
- → Collaborated with peers on the development of new automation tools and services that used the *Scala pure functions*; worked on the elimination of the side effects and improvement of reliability and performance using the *functional paradigm*.

ACRONIS | RESEARCH INTERN
September 2020 – August 2021

- → Theoretically described the *garbage collection* algorithm in search engines, based on bitmap-indexes.
- → Implemented the algorithm on a *search engine* based on *LSM trees* written in *Golang*.
- → Calculated the algorithm *running time* depending on the amount of added documents and *IO metrics* for the request queries.

PROJECTS

GARBAGE COLLECTOR IN SEARCH ENGINES | GOLANG
2021

- → Developed an effective garbage collection algorithm, tested and compared with other solutions.
- → Written fully in *Golang* due to its convenience for *multithreading*.

MODEL OF A DISTRIBUTED SYSTEM | GOLANG
2021

- → Implemented the *infrastructure* that allows to create models of *distributed processes*.
- → Written fully in *Golang* due to its convenience for multithreading.
- → distr-model simulates distributed processes that exchange messages with loss and supports both *synchronous* and *asynchronous* operation mode.

TELEGRAM BOT FOR THE CAMPUS DOMESTIC ISSUES | PYTHON
2020

- → This *bot* simplified the application filling process for the domestic issues in the campus.
- → Backend is written fully in *Python*, using the Google Tables. Frontend is using *JavaScript* to interact with users.

WEBSITE FOR PROGRAMMING CONTESTS (JUDEX) | GOLANG
2020

- → Judex is a system for *automatic testing* for student contests.
- → Backend is written fully in *Golang*, using the standard libraries and *MongoDB* Server. Project is using multithreading with *goroutines* for faster results. *System calls* are used to manage time and memory used for test runs in isolated environment in order to keep system safe.

SKILLS

PROGRAMMING

Proficient:
Scala • Golang • SQL • C++

Experienced:
Python • LaTeX • C

Familiar:
Java • Assembly

QUANTITATIVE SKILLS

Linear algebra • Discrete mathematics • Algorithms • Probability theory • Optimisation

LANGUAGES

Russian - native • English - C2 German - B2

TOOLS/PLATFORMS

Git • Gitlab CI • Jira • Docker TravisCI • Make • CMake

EDUCATION

SCHAFFHAUSEN INSTITUTE OF TECHNOLOGY
MASTER'S IN COMPUTER SCIENCE AND SOFTWARE ENGINEERING
Sep 2021 - Present | Schaffhausen, CH
Cum. GPA: 5.8 / 6.0

MIPT, PHYSTECH
BACHELOR'S IN APPLIED MATHEMATICS AND PHYSICS
Sep 2017 - Aug 2021 | Moscow, RU
Cum. GPA: 4.9 / 5.0

REFERENCES

Manuel Oriol, Associate Professor, SIT
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Lesia Nünlist, Founder, "Zurich helps Ukraine"
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