ARTYOM FARTYGIN

Software Engineer

@ fartygin.a@phystech.edu

temikfart

temikfart

in Artyom Fartygin

Russia, Moscow

EXPERIENCE

Laboratory Assistant Java

Institute for System Programming of the RAS - Compiler **Technology Department**

October 2022 - present

Svace

- Developed a protection system for the distribution of our product using physical keys, which significantly speeded up the analysis of large projects (release-3.4.240516);
- Wrote a detailed article on Habr about loading classes in Java 8 and Java 9+:
- Developed 6 insecure code detectors for Samsung's main static analyzer - Svace. Developments are included in the release-3.3.2.

Assistant Engineer C++

Huawei - System Engineering Lab

Summer Internship 2022

• Developed 3 inefficient code detectors (Static Analysis). Two of them analyze LLVM IR and look for idioms (Idiom Detection). All the programs are used in the company.

PROJECTS

StudOko Kotlin

Web-application for the ATP department at MIPT

February 2024 - present

- I lead team of 4 students from DAMI MIPT using Scrum;
- The project is at the MVP development stage;
- Will allow teachers to register courses and post homework assignments, and students — to subscribe to courses and get the necessary access to GitLab and MIPT server cluster;
- Technologies: Ktor, React.js, PostgresQL, Docker, Gradle.

SQL to CypherQL Converter C++

Open-Source project - A tool for translating queries when migrating from RDBMS to GDBMS

February 2022 - present

sql2cypher

- Translation of queries in SQL language (Microsoft SQL Server) into Cypher language (Neo4j);
- The tool already allows to translate simple DDL and DML gueries:
- An architecture has been implemented to expand the translated grammar;
- Technologies: C++, CMake, GoogleTest, GitHub Actions, graphviz.

EDUCATION

1 University Degree

MIPT, Bachelor

September 2020 - July 2024

Graduated from the department of applied mathematics and informatics.

SKILLS

Development languages

- Java commercial development
- Kotlin –web-applications with Ktor
- C++ standard library and some LLVM
- С standard, POSIX и MPI libraries.
- Groovy Gradle build scripts with custom gradle tasks and plugins; Jenkins Pipelines
- Python scripts and automated Web UI-testing via Selenium WebDriver (PyTest, unittest)

Had work experience

- JVM bytecode editing using ASM, modules system and classloading
- SQL Microsoft SQLS | PostgresQL
- Cypher Neo4j (graph DBMS)
- CMake Make cross-platform compilation of C, C++ and LaTex projects
- LLVM analyzing passes for **LLVM Opt**, comprehention of most LLVM IR instructions
- Ruby basic knowledge and creation of simple Web applications via Ruby on Rails

LANGUAGES

• English — Intermediate