Niyaz Nigmatullin

niyaz.nigmatullin@gmail.com | +357 99813836| linkedIn/niyaznigmatul | github/niyaznigmatullin

EDUCATION

M Sc, Computer Science   St. Petersburg, Russia | Jun 2015
ITMO University

B Sc, Computer Science   St. Petersburg, Russia | Jun 2013
ITMO University

WORK EXPERIENCE

JETBRAINS | Software engineer and researcher | Kotlin, Java, JVM   Cyprus | since Feb 2023

- Researching symbolic execution software testing, algorithm that does a test generation for a JVM bytecode.
- Implemented algorithm to explore different heap object states and generate test input using classes' public API.

HUAWEI | Senior software engineer and researcher | C/C++, ARM, Linux   St. Petersburg, Russia | 2020 – 2022

- Reasearched and developed an algorithm to compress genome data.
- Made a target optimizations for ARM platform to reach target speeds, and 70% better than GZIP compression.
- Developed GZIP recompression framework, new features, code refactoring, partially-multithreaded processing.

ITMO UNIVERSITY | Professor | St. Petersburg, Russia | 2015 – 2021

- Algorithms and Data structure professor
- Department chairman: curriculum designing, educational process maintenance.

VK | Part-time software engineer | C/C++, Linux, Network, Database   St. Petersburg, Russia | 2015 – 2018

- Created an index for a SQL-like database, using persistent data structure for multithreaded access.

OUTSIDE PROJECTS

ICPC LIVE ↗   Java, OpenGL, Web
A software to generate overlay for a competitive programming competition broadcast.

POLYGONCONTESTIMPORTER ↗   Java, Kotlin, Multiplatform
A software to automatically download and convert polygon.codeforces.com competitive programming problem data into PCMS2 format.

POLYGON UPLOADER ↗   Python
Authomatic uploading programming contest problems from some websites to polygon.codeforces.com

INNOPOLIS OPEN ↗   Head of scientific committee, Problem designing
A programming olympiad for high-school students

COMPETITIVE PROGRAMMING CRASH COURSE   Instructor, Lecturer

- ETH Zurich, Switzerland: 2015, 2016
- UCLA, United States: 2014, 2015, 2016, 2017
- Harbin U of Tech, China: 2014
- ITESM Monterrey, Mexico: 2015

COMPETITIVE PROGRAMMING JUDGE   Problem designing

- ICPC Regionals: 2014 – 2022
- International Olympiad in Informatics: 2016
- Asia-Pacific Olympiad in Informatics: 2017, 2018
- Russian Olympiad in Informatics: 2014 – 2021

SKILLS

Languages: C/C++, Rust, Java, Kotlin, Python
Background: Algorithms, Optimizations, Databases
Technology: Git, Docker, LaTeX, Linux