Andrei Tonkikh

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Summary

I am a computer science student fascinated by the topic of distributed systems. I am highly interested in multiprocessor programming, operating systems and system programming in general. I love to dig into large and complex systems to understand how they work on all levels of abstraction. I have experience of production C++ development in an SRE team and a team working on a large distributed computing platfotm. My long term goal is to become a researcher in distributed systems or multiprocessor programming.

Education

Higher School of Economics, Saint-Petersburg, Russia — MS in Computer Science — Intended 2019 – 2021

Higher School of Economics, Moscow, Russia — BS in Computer Science with focus on **Cloud Computing** — 4th year, Graduating July 2019

Internships

- **Yandex SWE Intern** *July – December 2018*
  - Enhancing job scheduling algorithms for YT – Yandex's internal distributed computing platform.
- **Google SRE Intern** *Summer 2017*
  - Was part of Cloudnet Shard of Traffic Team SRE in London.
  - Improved the black box monitoring system for Google Cloud Engine.

Open Source Contribution

- **Packer Plugin for vSphere** *Fall 2017*
  - Automated creating virtual machines and OS installation in vSphere environment. The project is in Go language.
  - ***github.com/jetbrains-infra/packer-builder-vsphere***
- **Rust Standard Collections Library** *Spring 2016*
  - Contributed to the implementations of B-Tree and Binary Heap in rust standard library.
  - ***github.com/rust-lang/rust/pull/33947*** and ***github.com/rust-lang/rust/pull/32987***

Most Relevant University Courses

Fall 2018	External Memory Algorithms, Big Data Software Engineering, Machine Learning
Spring 2018	Parallel Programming, Containerization, Computer Networks, Compillers
Fall 2017	Linux Kernel, Databases, Statistics, Software Engineering
2016 – 17	Operating Systems, Functional Programming in Haskell, Java
2015 – 16	Algorithms and Data Structures, C++, Linux Administration

Courseworks include writing my own *multi-threaded OS-kernel* and a simple *containerization utility* in Rust, creating simple linux kernel modules in C, implementing a very basic *mapreduce framework* in Kotlin, a x86 compiler in OCaml, and a *multiplayer 3D action game for Android* in Java.

Programming Languages

Strongest:	C++, C
Comfortable:	Go, Kotlin, Java, Rust, Python
Limited Experience:	Scala, R, Haskell, OCaml

Other Experience

- Programming Competitions
  - 8th place in Google HashCode 2018 Finals in Dublin.
  - Awarded in "All-Russian Olympiad of School Students in Informatics" and many others major Russian programming olympiads for high school students.
- Teaching
  - Taught high school students basic algorithms in "Summer Informatics School".