

# 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 platform. My long term goal is to become a researcher in distributed systems or multiprocessor programming.

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## 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 <b>Cloud Computing</b>	4th year Graduating July 2019

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## 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.

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## 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](https://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](https://github.com/rust-lang/rust/pull/33947) and [github.com/rust-lang/rust/pull/32987](https://github.com/rust-lang/rust/pull/32987)

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## Most Relevant University Courses

<b>Fall 2018</b>	External Memory Algorithms, Big Data Software Engineering, Machine Learning
<b>Spring 2018</b>	Parallel Programming, Containerization, Computer Networks, Compilers
<b>Fall 2017</b>	Linux Kernel, Databases, Statistics, Software Engineering
<b>2016 – 17</b>	Operating Systems, Functional Programming in Haskell, Java
<b>2015 – 16</b>	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.

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## Programming Languages

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

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## 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”.