

# Andrei Tonkikh

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## Education

Saint Petersburg  
Academic University

BS in Computer Science  
with focus on  
Cloud Computing

2015-Present (3rd year)  
Graduating July 2019

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## Internships

- **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 Experience

- **Packer Plugin for vSphere** *Fall 2017*
  - Developed a Packer builder which automates creating VMs and OS installation in vSphere environment. The builder is widely used within JetBrains infrastructure and has its own user base.
  - [github.com/jetbrains-infra/packer-builder-vsphere](https://github.com/jetbrains-infra/packer-builder-vsphere)
- **Rust Standard Collections Library** *Spring 2016*
  - I made several pull requests to Rust's standard collections library. All the implemented methods are now in the stable release.
  - `split_off` method for `BTreeSet` and `BTreeMap`: [github.com/rust-lang/rust/pull/33947](https://github.com/rust-lang/rust/pull/33947)
  - `append` method for `BinaryHeap`: [github.com/rust-lang/rust/pull/32987](https://github.com/rust-lang/rust/pull/32987)

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## Projects

- **My Little Map Reduce** *Winter 2017 – 18*
  - Toy implementation of mapreduce framework written in Kotlin.
  - [github.com/xosmig/MyLittleMapReduce](https://github.com/xosmig/MyLittleMapReduce)
- **xo\_os** *Fall 2016*
  - Small multi-threaded x86-64 OS kernel written in Rust.
  - [github.com/xosmig/xo\\_os](https://github.com/xosmig/xo_os)
- **Blackout** *Fall 2016*
  - A multiplayer 3D action game for Android. Written in Java using libGDX framework.
  - [github.com/niksaz/blackout](https://github.com/niksaz/blackout)

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## Programming Languages

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

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## Most Important University Courses

Spring 2018 Parallel Programming, Containerization, Computer Networks, Compilers  
Fall 2017 Linux Kernel, Databases, Statistics, Software Engineering  
2016 – 17 Operating Systems, Functional Programming, Java  
2015 – 16 Algorithms and Data Structures, C++, Linux Administration

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## Other Experience

- **Competitive Programming:** Was 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".