ALEXEY ILYUKHOV

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SKILLS

Human Management, Goal Setting and Mentoring

Experience in C++ (4+ years) and Java (2 years) for commercial development

Python, JS, Git, Gradle, Android Development (mostly Java), IOS (Swift) and Qt

WORK EXPERIENCE

Yandex Browser Team — Software Engineering Intern   Summer 2018
Improved development experience in Android Studio. Prototyped build optimizations

Yandex News Team — Software Engineering Intern   December 2018 — June 2019
Developed a new administration system to work with partners (i.e. different media)

Yandex MapKit Team — Software Engineer   June 2019 — November 2020
Developing Yandex MapKit and related services. Added functionality to automobile routing. Improved guidance along the route. Refined jams detecting. Enhanced ads logic

Proprietary fund (name under NDA) — Researcher   November 2020 — July 2021
Analyzed big data on financial markets and implemented trading strategies using Python and C++.

Silver Mont – CTO   Since 2021

TLDR Head of development in high frequency trading company of more than 20 employees. Built a trading platform and trading strategies from scratch. Set up trading on the leading exchanges. Grew team from only two people to the current size. After certain point split the team into multiple small. Introduced company wide goal-setting. Currently I manage four teams

Subteams One technical team develops a trading product. They are responsible for data collection, exchange simulation and trading strategies runtime. The team builds and supports infrastructure for two exchanges biggest exchanges and plans to extend it further. The main objective is simulation quality, but also speed is important

The other technical team is focused on devops and open source technologies introduction. Currently the team supports compute cluster with about 4 000 cores, CI on Jenkins and about 50TB of stored data (replicated on multiple bare metal servers and in s3). Our servers are located in four data centers and we have about 150 machines in total. We collect metrics with Prometheus and use in Grafana and for alerts. We use Jaeger over ClickHouse to collect traces and optimize speed. We also built a service to provide runtime information to running binaries and adjust their behaviour without redeploy. In future this service will be used for A/B testing

Two trading teams focus on research (using Python) and implementation of trading strategies (using C++). Details of the strategies are strictly confidential

Every three months we set up goals for each team. We collect expectations of trading teams, review technical debt and set the main focuses. We also review performance of each employee and the team as a whole

Story I started in this project as the main developer. I wrote a lot of C++ code and introduce the main dependencies. We use C++ with Conan package manager, build with CMake and use Boost to work with network. It was a pet project first and became my full time job later

Later I became the lead of new infrastructure team and with grew it to the size of 8 people. I was owner of infrastructure code base, responsible for all our services, main code reviewer and mentor for newbies. It was fun but quite exhausting. Then I became responsible for two trading teams (one existing and the one newly created) and split infrastructure team

Now my main focus is communication between subteams, goal setting and processes improvement. Every week we meet with the lead of every team and discuss the main tasks, progress and blockers. The last months I spent a lot of time to stop blocking somebody. It included delegating most of the work and determining who is responsible for each process. Currently team can be mostly autonomous and all the routine is done without my participation

Working together we became one of the biggest market makers on our first exchange in a little more than a year

Open source projects

- Created Atom package for C++ compilation, 39 000+ downloads, atom.io/packages/gpp. Improved Chromium and Android Studio compatibility, commit 1d2719

Competitive programming

- Author of 3 Codeforces contests ([#442](#442), [#476](#476), [#483](#483))
  More than 19 000 participants in total

- Tester of 13 Codeforces contests, Author of 6 problems on Hackerrank and 1 problem on Codechef

EDUCATION

National Research University Higher School of Economics　　　　　　　　　Sep 2018 — July 2022
Bachelor of Science in Applied Mathematics and Informatics

ACHIEVEMENTS

ICPC semifinalist　　　　　　　　　2021

Google Hashcode finalist, 34-th place among more than 10 000 participants in qualification round and absolute 7-th place in final round as member of team Hashcode fans　　　　　　　　　2021

Google Hashcode finalist, 13-th place in qualification and 20-th place in final round as member of team Hashcode fans　　　　　　　　　2020

133-rd place in Google Code Jam　　　　　　　　　2018

173-rd place in Distributed Google Code Jam　　　　　　　　　2018

Winner of The Open Russian Olympiad In Programming

- 3-rd of more than 350 participants　　　　　　　　　2018

Awarded at The National (Russian) Olympiad In Informatics

- 26-th of more than 200 participants in 2018 and 33-rd in 2017

Awarded at The National (Russian) Olympiad In Economics, 51-st of more than 200 participants　　　　　　　　　2018

Orange (Master) on Codeforces: *Livace*