

I am interested in a research work in the field of computer science and participating in programming projects. For more than 7 years I've been intensively studying programming and math. I'm now graduating from an extensive [bachelor course](#) which is sponsored by [JetBrains](#), [Yandex](#) and other big IT companies. From secondary school and throughout the university I've participated in many schools, research and IT projects. I have a vast knowledge in math, theoretical and practical computer science, backed up with experience of real world research and production work.

SKILLS

Math fields	Probability theory, Combinatorics, Linear Algebra, Discrete Math, Statistics
Computer science	Approximate algorithms for NP-hard problems, Graph embeddings, Online algorithms
Programming languages	Python, Kotlin, C++, C sharp
Tools	Git, \LaTeX , Wolfram Alpha
Communication	English, Russian

Due to my considerable experience in theoretical research I have well-developed skills of information search and an in-depth understanding of how to write papers for publication.

I've attended many data science courses and thus I'm confident in using such frameworks as *Numpy*, *Pandas*, *Matplotlib*, *PyTorch*, *SciPyStats*, etc.

Furthermore, I've participated in several production projects and hence I have practical knowledge of databases (Postgresql), internet protocols (http, https and web sockets), client-server communication and sensitive information security.

TECHNICAL EXPERIENCE

Researcher / Dynamic graph embeddings <i>ITMO University</i>	01.07.2021 — Present <i>Saint-Petersburg</i>
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In this project I investigated the problem of dynamically updating an embedding of the so called guest graph into the host graph with a goal of minimizing given objective function. My research team and I are preparing a publication now.

[Related topics](#): *Self-adjusting networks, Minimum Linear Arrangement, Bandwidth*

Researcher / Static graph embeddings <i>JetBrains Research</i>	01.02.2022 — Present <i>Saint-Petersburg</i>
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In this project I investigated the problem of finding in the restricted class the best host graph to embed the given guest graph minimizing the objective function. My research team and I are preparing a publication now.

[Related topics](#): *Self-adjusting networks, Quadratic assignment problem*

Researcher / Online algorithms <i>Technical University</i>	01.09.2021 — 31.12.2021 <i>Berlin</i>
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In this project I investigated the problem of designing an online algorithm for serving the request on a graph of a known topology. We were able to develop general technics for proving the cost lower bound of online algorithms on array.

[Related topics](#): *Self-adjusting networks, Online algorithms, List update problem*

Researcher / Quantum computing <i>Saint-Petersburg State University</i>	01.02.2021 — 01.06.2021 <i>Saint-Petersburg</i>
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In this project I examined the difference between circuit and adiabatic quantum computers implementing algorithms and measuring performance of real machines from IBM and DWave companies. As the result I have collected and statistically analyzed performance of computers of two types stating that adiabatic computers for now are significantly better in simulating Ising distributions then circuit ones.

[Related topics](#): *Ising model, Distribution similarity*

C++ Developer / Routing <i>VeeRoute</i>	01.09.2021 — 31.12.2021 <i>Saint-Petersburg</i>
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In this project I worked as a C++ junior developer implementing a solver for the routing problem. After the implementation I measured metrics on a set of benchmarks to prof the performance of the resulting solver. The solver was successfully deployed in production.

[Related topics](#): *Assignment problem, Vehicle routing problem*

Android Developer / Mobile game <i>Personal project</i>	01.06.2021 — 01.09.2021 <i>Saint-Petersburg</i>
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In this project I developed an Android Game and submitted it to the Play Market. [Game](#).

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Anton Paramonov

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EDUCATION

Bachelor of Mathematics and Computer Science , <i>Saint-Petersburg State University</i>	01.09.2018 — 01.06.2022
Math and physics lyceum number 366 , <i>Saint-Petersburg</i>	01.09.2010 — 01.06.2018
Summer school on theoretical informatics and computational complexity	Summer 2021
Summer school LKSH on competitive programming	Summer 2015, 2016, 2017

ACTIVITIES

Online multiplayer 3D game. Repo	Ongoing
Teaching math and programming. My programming course	Ongoing