

Artem Zakharenko

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EDUCATION

Saint-Petersburg Campus of Higher School of Economics

Bachelor of Applied Mathematics and Computer Science

Expected Graduation June 2024

- September 2020 - Present
- GPA: 8.35 out of 10

ACHIEVEMENTS

XIV Moscow Olympiad in Informatics, medalist, top 100 out of 400

March 2020

Technocup, medalist, top 125 out of 600

March 2020

ICPC 2021–2022, North-Western Russia Regional Contest, top 18 out of 85

December 2021

IMC 2022, second prize, top 240 out of 660

August 2022

EXPERIENCE

Algorithm teacher

August 2021 – September 2021

Summer Computer Camp

Russia, Perm

- Explained different algorithms and data structures to high-school students.
- Created problems for contests.

Jet-Brains autumn project "Deadlock detector" | *Python, lldb API, C++*

October 2021 – December 2021

- Made a script using the lldb Python API that can detect some types of deadlocks in the lldb Debugger.
- The task of the algorithm is to be able to find deadlocks in binary files without debug-info. Learned how to find the information and made algorithm for my system (Ubuntu 20.04).

Huawei internship

August 2022 – October 2022

Math modeling laboratory

Russia, Moscow/Saint-Petersburg

- Internship in area of combinatorial optimization.

PROJECTS

Portal-Engine | *C++, OpenGL, Git*

February – June 2021

- 3D-Game with portal-rendering, team coursework for C++.
- Made textures downloading, lighting with shadows, shaders.

Safe-mutex | *C++, multithreading*

September 2021

- Test task for autumn Jet-Brains project "Deadlock detector in the debugger".
- Made safe-mutex – wrapper over the std::mutex that can allow deadlocks to be defined as they happen.

Parser for L-language | *Haskell, Parsec*

October 2021

- Study project for formal-languages, parsing a programming language and comparing different libraries.
- Made the grammar of the language in the team.
- Made parser in Haskell using Parsec library.

Compile time regular expressions matching | *C++, templates*

October 2021

- The library that allows checking whether a string matches a regular expression in compile time.

Key-value storage | *C++, Data Storage Systems*

April – June 2022

- Skip-List based data storage system with LSM-structure.
- Developed architecture and implemented that system in a team of 3.

TECHNICAL SKILLS

- C++, C, Haskell, Python, Java, Assembler
- Algorithms and Data structures, Data Storage Systems
- Calculus, Linear Algebra, Probability Theory, Mathematical statistics
- lldb Python API, Boost-Asio, OpenGL, Parsec
- Linux, Bash, Git