Matvey Gusarov

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EDUCATION

Moscow Institute of Physics and Technology

Moscow, Russia

Bachelor of Computer Technologies

Expected Graduation, Jun 2025

GPA: 8.0/10

SENC MSU, Kolmagorov school

Moscow, Russia

Physics and Mathematics Class

Graduated, Jun 2021

GPA: 4.7/5.0

PROJECTS

Online Store with Aiogram

Mar 2022

- O Developed a Telegram bot working with a database: Python3, Aiogram, SQL3.
- O Wrote various levels of interaction with the bot and database.

Online Store with Flask

May 2022

- Developed a site on Flask with the possibility of payment.
- O HTML5, CSS3

Unordered Map

Apr 2022

Wrote an implementation of Unordered Map in C++ from STL.
Template class UnorderedMap
Key, Value, Hash, Equal, Alloc>,

where Key is the key type, Value is the value type,

Hash is the hash function to use (default is std::hash<Key>),

Equal - used comparer (default - std::equal_to<Key>),

Alloc - used allocator (default - std::allocator<std::pair<const Key, Value").

SharedPtr May 2022

Wrote an implementation of SharedPtr in C++ from STL.
Template class SharedPtr<T>.

There is support for the standard Deleter and Allocator.

Algorithms May 2022

- O Dynamic programming
- ${\color{orange} \circ}$ Segment Tree
- Search Tree
- The simplest algorithms on graphs: DFC, DFS, cycle search
- Algorithm for finding articulation points of a graph with multiple edges
- O The task is to find the maximum flow of minimum cost

ACHIEVEMENTS

All-Russian Olympiad in Physics Prize Winner

Tumen, Russia

Top-63 / 180 in the final, in total >50000 participants

Apr 2021

- Passed 4 qualifying stages, the final one consisted of 5 theoretical tasks and 2 practical ones.
- The most prestigious olympiad in physics in Russia.

All-Russian List Olympiads

Moscow, Russia

Became the winner in the Olympiads:

Mar 2021

- Olympiad "Phystech" in physics
- Moscow School Olympiad in Physics
- Olympiad "Rosatom" in physics

ADDITIONAL

- Relevant Courses: Programming Methodology and Data Structures in Python and C++, Algorithms, Linear algebra and geometry, Probability and Statistics, Discrete Math, Mathematical analysis, Differential Equations.
- O Programming languages: Python3, C++20, SQL3, HTML5/CSS3.
- English B2, blindly typing, sportsman, non-drinker, non-smoker, proactive, goaloriented, implemented a time management system, public speaking, motivating, energetic.