## **Education**

## Moscow Institute of Physics and Technology

2023-PRESENT

Phystech School of Applied Mathematics and Computer Science

Bachelor degree in Computer Science and Computer Engineering (Completed First Year) GPA: 5.00/5

#### **Moscow State School 57**

2019-2023

Physics Class, Graduated with Federal and Moscow Gold Medals
GPA: 5.00/5

## Courses taken

- Algorithms and Data Structures
- Computing Architecture and Assembly Languages
- Computer Architecture and Operating Systems
- C/C++

### **Skills**

- C/C++
- Assembly x86-64
- Git
- Python
- SFML
- Algorithms and Data Structures
- LaTeX

#### **Achievements**

# Russian National Physics Olympiad

Silver Medal (Top 32) at the Final Stage, Twice 2022, 2023

## Ovakimian Arman

Rublevskoye Shosse, Building 11, Block 2, Apt. 117 121108 Moscow, Russian Federation

Date of Birth: 8th November 2005

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- d3clane

## **Projects**

NOV 2024 - DEC 2024

Tools: C++,

#### **Graphics editor**

GH link: <a href="https://github.com/d3clane/MyPhotoshop">https://github.com/d3clane/MyPhotoshop</a>

Developed my own graphics editor as part of a student group project, during which we discussed and implemented standard API and developed various plugins for it. Created plugins based on the standard API, including a brush tool, eraser, Gaussian blur filter, and negative filter, among others.

**MAY 2024** 

Tools: C/C++, ASM X86-64, Graphviz

# X86-64 Compiler for my own programming language

GH link: <a href="https://github.com/d3clane/Compiler">https://github.com/d3clane/Compiler</a>

Developed my own esoteric programming language and its compiler, which generates executable x86-64 ELF64 file.

**APR 2024** 

Tools: C/C++, ASM X86-64, KCachegrind, Python, Graphviz

#### Optimizing hash table using asm

GH link: <a href="https://github.com/d3clane/HashTable">https://github.com/d3clane/HashTable</a>

Optimized search query performance in a hash table using assembly language. A detailed progress report is available on GitHub.

**FEB 2024** 

Tools: C/C++, ASM X86-64

## Hacking my friend's program (crackme)

GH link: https://github.com/d3clane/DosHack

Identified and exploited vulnerabilities in a friend's crackme program, including leveraging a well-known stack overflow vulnerability to gain access.

Candidate for the National Physics Team for the International Olympiad 2022

# Russian National Informatics Olympiad

Prize Winner at the Regional Stage, Twice 2021, 2023

## **Hobbies**

- Swimming
- Football
- Skiing
- History

OCT 2024 Tools: C/C++

## Molecular simulator

GH link: <a href="https://github.com/d3clane/molecularSimulator">https://github.com/d3clane/molecularSimulator</a>
A simple molecule simulator with basic physics and chemistry engines implemented. Automatically measures pressure and temperature in arbitrary units.