



☎ 8 (991) 771 60 19  
✉ ovakimian.al@phystech.edu  
✉ blekrfiro@gmail.com  
✉ @id\_n\_id  
🔗 d3clane

## Education

### Moscow State School 57

Physics class, graduated with gold medal

2019–2023

### Moscow Institute of Physics and Technology

Bachelor degree (finished first year)

Phystech School of Applied Mathematics and Informatics

2023–PRESENT

## Grades

### Overall

GPA: 9.09/10 (only excellent marks)

### Programming courses

GPA: 9.40/10

### System programming and compiler technologies course (Dedinskiy)

First semester: 9/10  
Second semester: 10/10

# Ovakimyan Arman

## Languages

- Russian (Native)
- English (B2)

## Projects

DEC 2023 – MAY 2024

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

### X86-64 Compiler for my own programming language

GH link: <https://github.com/d3clane/Compiler>

My own esoteric programming language with compiler to executable x86-64 elf64 file. Divided into three programs:

1. Frontend
2. Middle-end
3. Backend

APR 2024

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

### Optimizing hash table using asm

GH link: <https://github.com/d3clane/HashTable>

Optimizing hash table requests time performance using asm. Three types of optimizations are used:

1. SIMD instructions
2. Inline asm
3. Linking with another file with asm code

NOV 2023

Tools: C/C++, Graphviz, SDL

### Akinator

GH link: <https://github.com/d3clane/Akinator>

Wise tree that can guess characters based on their traits. Can memorize new characters.

MAR 2024

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

### Mandelbrot

GH link: <https://github.com/d3clane/Mandelbrot>

Optimizing the speed of Mandelbrot set generation using SIMD instructions.

## Skills

---

- C/C++
- Assembly x86-64
- Git
- Graphviz
- KCachegrind
- Latex
- Make
- EDB
- Python
- SDL
- SFML
- Algorithms and data structures
- Linux
- Gnuplot

## Achievements

---

### Russian National Physics Olympiad

Twice final stage silver medal

2022, 2023

### Candidate to the national physics team for the international Olympiad

2023

### International Experimental Physics Olympiad (IEPHO)

Bronze medal

2020

### Russian National Informatics Olympiad

Twice region stage prize winner

2021, 2023

NOV 2023

Tools: C/C++, LATEX, Gnuplot

### Differentiator

GH link: <https://github.com/d3clane/Differentiator>

Reading math expressions from human-readable common form, differentiating it. After that generating pseudo-scientific pdf with step-by-step differentiating, graphs building. Also decomposes the expression into a Maclaurin series.

-----

FEB 2024

Tools: C/C++, Disasm, SDL

### Hacking my friend's program (crackme)

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

Finding vulnerabilities in my friend's program and exploiting them.

-----

FEB 2024 - MAY 2024

Tools: C/C++, Python

### Laboratory works from algorithm course

GH link: <https://github.com/d3clane/labs>

Laboratory works to study different data structures and algorithms:

1. Comparing speed performance of stack implementation using list and dynamic array.
  2. Comparing different sorting algorithms
  3. Comparing different algorithms of building binary heap.
  4. Comparing different hash tables and hashing algorithms
  5. Comparing different binary search trees implementations.
- 

## Soft Skills

---

- Quick learning
- Organized
- Hard-working
- Sociable and collaborative
- Responsible