ALEXANDER SIMANKOVICH

MIPT undergraduate - Applied Mathematics & Physics

CONTACT

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OBJECTIVE

Curious undergraduate of MIPT seeking for a position in development of reliable and efficient software. Eager to apply knowledge in practice, develop skills and communication through dedicated work on project improvements.

EDUCATION

Bachelor of Applied Mathematics & Physics — **2021 - 2025**
MIPT, DREC - Moscow, Russia

GPA: **9.6/10.0**
GPA (Computer science): **10.0/10.0**

MAIN PROJECTS

Bellang — **2021-2022**
Tool: C, Make, Radare2, perf
Supervisor: Ilya Dedinskiy (ded@ded32.ru)

Compiler for custom 'Belarusian' language with cross-compilation, cross-translation and ELF x86-64 object files support.

Hashtable — **2022**
Tool: C, perf, SIMD, x86-64 assembly, Make, Python
Supervisor: Ilya Dedinskiy (ded@ded32.ru)

Hashtable implementation with performance tests and optimization.

Mandelbrot — **2022**
Tool: C, Qt, SIMD
Supervisor: Ilya Dedinskiy (ded@ded32.ru)

Mandelbrot set generator with AVX optimization.

printf — **2022**
Tool: x86-64 Assembly, C, Make
Supervisor: Ilya Dedinskiy (ded@ded32.ru)

Simplified printf() implementation in assembly language.

Differentiator — **2021**
Tool: C, Make, LaTeX
Supervisor: Ilya Dedinskiy (ded@ded32.ru)

Tool for expression differentiation with twisted LaTeX output.

Processor — **2021**
Tool: C, Make
Supervisor: Ilya Dedinskiy (ded@ded32.ru)

Virtual machine and assembler for custom assembly language.

SKILLS

Languages:

C, x86-64 Assembly, Python

Tools:

Make, VSCode, perf, radare2, LaTeX, git

Foreign languages:

English (Intermediate)

ACHIEVEMENTS

Belarus Physics Olimpiads

Two-time winner (2019, 2021)

High school physics competition preceding International Physics Olimpiad.

MIPT 'Phystech' olimpiad

1st degree diploma (2021)

SPbU physics olimpiad

1st degree diploma (2021)