

Kotlyarov Mikhail



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EDUCATION

Moscow Institute of Physics and Technology, Dolgoprudny, Russian Federation
1st year of bachelor's degree,
Phystech School of Radio Engineering and Computer Technology,
Applied Mathematics and Physics, Radio engineering and Computer technologies,
2024 - 2028
overall GPA: 9.0/10, Informatics GPA: 10.0/10

PROJECTS

Mandelbrot set

Tools: C, SDL2

A research project on optimizing a program that computes points belonging to the Mandelbrot set. Includes graphic version using SDL2.

[Repository link](#)

Differentiator

Tools: C, TeX

A program that reads an expression from a file and differentiates it. Can be expanded into a Taylor Series at any point to the desired order. There is a mathematical output in TeX file with auto-compilation. Backend is based on my binary trees data structure

[Differentiator repository link](#)

[Binary trees repository link](#)

Processor

Tools: C

My simplified SPU with my own improvised assembler compiler. It has register block, RAM, ISA with some basic integer and float arithmetics. It is similar to CISC architecture with uneven code data

[Processor repository link](#)

[Stack repository link](#)

Programming language

Tools: C

My own programming language with emoji syntax. Translates the code into my assembler syntax, then compiles into binary code and executes on my SPU. It uses my stack data structure

[Repository link](#)

My printf

Tools: Nasm, x64 dbg

My own printf on nasm with jump table, %s, %d, %x, %o, %b, %% specifiers.

[Repository link](#)

COMPUTER SKILLS

Languages: C, Assembly, TeX.

Applications: Visual Studio, Git

Tools: Make, doxygen, graphviz

AWARDS	MIPT Olympiad in Physics prize winner, MIPT Olympiad in Mathematics prize winner, BMSTU Olympiad in Mathematics prize winner
SOFT SKILLS	Hard-working, communicable, responsible
INTERESTS	Programming, weightlifting