Yaroslav Kuznetsov

DREC MIPT student / System programmer

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⬡ ask0later

Russian	Native
English	B1/B2

About me:
I have been coding since the end of August 2023 and I am going to continue confidently. I also like to do sports (volleyball, wrestling) and travel.

Hard Skills

> *C, x86-64 Assemly, Git, Make, EDB, Valgrind, Tex.*

Soft Skills

> *Responsibility, stress resistance, leadership skills, critical thinking, communication skills.*

Education

Moscow Institute of Physics and Technology
Sep 2023 - July 2027

Department of Radio Engineering and Cybernetics

First year student majoring in "Applied Mathematics and Physics ".
GPA (General): 7,69 / 10,00.
GPA (Programming): 9,50 / 10,00.

System programming and compiler technology course
Sep 2023 - May 2024

Huawei and Ilya Dedinsky's educational course

Introduction to computer system emulation, compiler technologies, and industrial programming.

Projects

Compiler
April - May 2024

⬡ *https://github.com/ask0later/compiler*

This project is an implementation of a compiler from my own programming language into an x86-64 architecture executable file.
Also we can generate a listing of Nasm commands and their opcodes.

Hash Table
April 2024

⬡ *https://github.com/ask0later/hashtable*

This project is about implementing a hash table and optimizing it for a specific task.
The program places for optimization were found using Valgrind profiler. Assembly inserts and SIMD instructions were used for their optimizations.

Soft Processor
November 2023

⬡ *https://github.com/ask0later/processor*

This project implements a processor emulator. It is divided into three parts:

- Assembler: generates bytecode from a program in my assembler.
- Disassembler: generates assembly code from byte code.
- CPU: executes the byte code.

Mandelbrot
March 2024

⬡ *https://github.com/ask0later/mandelbrot*

This project is a visualization of the Mandelbrot set by SDL2 lib. The algorithm was optimized using SIMD instructions.