

ERMOLAEVA VARVARA DMITRIEVNA

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C/C++ developer

EDUCATION

Moscow Institute of Physics and Technologies, second year bachelor student

LANGUAGES:	C, C++, Python
SOFTWARE/TOOLS:	Cmake, Make, Git, Linux, lldb, VS code, vim, doxygen
LIBRARIES:	OpenAL, SFML, Graphviz
ADDITIONAL SKILLS:	English(B1), Russian(native), effective web searching, music encoding/decoding
KNOWLEDGE:	Basic algorithms, data structures

PROJECT EXAMPLES:

SIMPLE CPU (C) - Simple processor model. Accepts pseudo assembler code, tokenizes the input code, and executes the list of entered commands (or returns a specific error). New instructions are developed and implemented into pseudo assembler syntax using code generation. <https://github.com/tsatsulya/Proc>

STACK WITH DATA SECURE (C) - Stack data is protected with set canaries and hash, standard stack operations are supported in secure variant. https://github.com/tsatsulya/Stack_ver1

OPTIMIZED LINKED LIST (C)- A list with the possibility of optimizing access to elements, a modified storage structure in memory. Standard list functions and functions for list optimization are supported. https://github.com/tsatsulya/Linked_list

MIRITH (C++, in progress) - A music application for organizing and adding tracks stored on the user's device. It also allows tracks to be sent to another device using the account system. The application technologies include algorithm for determining the correlation between two tracks, a server-client system, its own player, a system for organizing and storing / hashing files, the development of a graphical interface and the decoding of metadata of music files in various formats (mp3, flac, monkey, ogg, wav). The underlined parts are developed(or will be developed) by me. <https://github.com/alexpaniman/spotivar>

SPHERE OF INTERESTS: Optimization algorithms, compilers and formal language theory, backend development, DevOps