AKHMETOV RUSLAN

4th Jan 2002   @ denrenruslan@gmail.com   Moscow, Russia   github.com/DenRen

PROJECTS

Succinct on-disk algorithm (Graduate work)
April 2023 – May 2023   github
- Two data structures are explored, implemented and compared: String B-Tree and String B-Tree + Geometric Burrows-Wheeler Transform. Their difference is that the second is implemented on the basis of the first, but at the same time takes up less space due to compressed indexes. The results were obtained that the compressed structure takes up 4 times less space on the disk compared to a regular one, but works twice as long.

Bitonic Sort on GPU
Nov 2022 – Dec 2022   github
- A vectorized and super multi-threaded number sorter based on the bitonic sorting algorithm. Outperforms (-O3) CPU by 7 times

Completed Course in Algorithms on C++
Jan 2022 – May 2022   github
- Conditions and solutions to problems from the course, as well as many tests for them

Binary Translator
Aprel 2020 – May 2020   github
- Project (5K lines) translate the text format assembler to binary format in a wide range of x86 architecture instructions

Archiver on GPU
Mart 2020 – Mart 2020   github
- Archives very quickly on the GPU

Calc integral in VLAN
Sep 2021 – May 2022   github
- The most interesting of the projects is the calculation of a definite integral on many computers in parallel. Tested in a local network on 8 computers with 8 threads

LuQulc
Nov 2019 – Jan 2020   github
- A quantum programming language that immediately executes

Robo arm on STM32
Mart 2021 – May 2021   github
- Stepper motor drivers and robot arm control code

Simple Graphic lib on DX11
Nov 2020 – Jan 2021   github
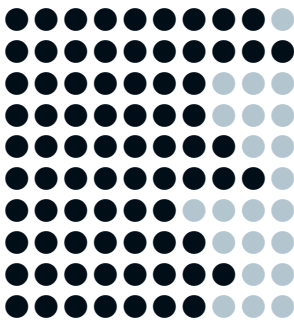- A simple 2D graphic lib on 3D direct library

Printf on clear ASM
Mart 2020 – Mart 2020   github
- Pure assembler printf that recognizes insertion of string %s, binary format %b, octal: %o and hex %x

SOFTSKILLS

Responsibility   Team Work
Sociability   Professionalism
Learning Potential   Organization
Flexibility

PROFESSIONAL SKILLS

Skill	Level
C++17	●●●●●●●●●○
C	●●●●●●●●●●
ASM	●●●●●●●○○○
Git	●●●●●●●○○○
Bash	●●●●●●●○○○
Algorithms	●●●●●●●●○○
LockFree Algo	●●●●●○●○○○
Multithreading	●●●●●●○○○○
Linux	●●●●●●●●○○
OpenCL	●●●●●●●○○○

STRENGTHS

- Development

C++17   C17   OpenCL   ASM
Bash   Python3   Java

- Libraries and Frameworks

STL   googletest   OpenCL-CLHPP
PyTorch   DirectX11   MPI
LL (for STM32)

- Development Tools – IDE

CLion   VS Code   Neo Vim
Qt Creator   Visual Studio

EDUCATION

MIPT
Sep 2019 - Bachelor   Moscow

LANGUAGES

Language	Level
Russian	●●●●●●●●●●
English	●●●●●●○●○○