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Matvey Mukhorin

EDUCATION

Bachelor of Applied Physics and Math   **September 2021 - August 2025**
Moscow Institute of Physics and Technologies

Main courses:

- Compilers, Computer Architecture and Assembly, OS, C++

- Linear Algebra, Mathematical analysis

- Physics, Theoretical mechanics

WORK EXPERIENCE

Software Engineer   **July 2022 - August 2022**
ISP RAS, OS lab   *Moscow, Russia*

- Developed and embedded pool allocator in RTOS JetOS.

PROJECTS

Paint from scratch
- Built simple graphics editor from scratch (Patterns, C++, Make, SFML)
  https://github.com/matmuher/cherchuha

New Years postcards constructor
- Developed markup language for postcards and modulo that processes it (Teamwork, C++, Make)
  https://github.com/matmuher/QR_postcards

Rasterizer from scratch
- I am developing a software rasterizer (C++, CMake, SFML):
  https://github.com/matmuher/ma_rasterizer

Hash functions analyze and optimization
- Analyzed performance of 5 hash functions and optimized hotspots using SIMD and assembly (C, Python, Callgrind)
  https://github.com/matmuher/hash_table_optimize

Toy programming language series
- Built toy programming language that compiles to ISA of my virtual machine (C, CodeBlocks)
  https://github.com/matmuher/ma_lang
- Created JIT binary translator that translates binaries from my virtual machine ISA to native one (C, CodeBlocks)
  https://github.com/matmuher/JIT-translator

Log Daemon
- Built logger that can work in daemon mode (C, POSIX API, Bash)
  https://github.com/matmuher/3_sem_22_23/tree/main/task6/LogDaemon

SKILLS

Programming	C, C++, Python, Git, Make, CMake, LaTeX, MarkDown
Communication	Russian (native), English (intermediate), Spanish (beginner)