


VASILII MATRENIN

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 Russia, Moscow

System Programmer

EDUCATION

Moscow Institute of Physics and Technology 2020 - 2024
Applied Physics and Mathematics, DREC Department, Bachelors degree
Thesis: Synthetic execution traces generation for testing: [VasiliyMatr/bachelors-diploma](https://github.com/VasiliyMatr/bachelors-diploma)

Moscow Institute of Physics and Technology 2024 - Present
Applied Physics and Mathematics, DREC Department, Masters student

SKILLS

Languages: C/C++, Rust, Lua, Bash, Assembly, Python

Software & Tools: LLVM, Sol2, GTest, CMake, Make, VHDL, Git, Linux, debugging, profiling

Math: Math Analysis, Linear Algebra, Diff Equations, Integrals, Digital Signals Processing

Other Skills: CPU micro-arch, CPU functional sim, PLs VMs, PLs Design, \LaTeX , English (C1)

PROJECTS (ALL AVAILABLE ON GITHUB)

Functional RISC-V simulator Sep 2023 - Jul 2024
Repository: [VasiliyMatr/sim2023](https://github.com/VasiliyMatr/sim2023)
Features: MMU, Plugins support, Threaded code

LLVM practice Sep 2023 - Jul 2024
Repositories: [VasiliyMatr/LLVMPractice](https://github.com/VasiliyMatr/LLVMPractice), [VasiliyMatr/llvm-project](https://github.com/VasiliyMatr/llvm-project)
Features: Tracing instrumentation pass, Frontend for toy language (based on Flex + Bison), Backend for toy ISA

JIT and AOT practice Sep 2024 - Jul 2025
Repository: [VasiliyMatr/jit_and_aot](https://github.com/VasiliyMatr/jit_and_aot)
Features: IR Library, Graphs Alogos (DFS, RPO, Dom Tree, Loop Tree), Peepholes, Checks Elimination

WORK EXPERIENCE

Huawei corporation, R&D in CPU & Software co-design Jul 2022 - Present

- Implemented data processing/generation tools
- Participated in future directions discussions
- Managed small team (3 people)
- Mentored 2 junior devs

Intel corporation, IPP Domain internship Jul 2021 - Aug 2021

- Investigated possibilities for Intel IPP data compression algos integration
- Optimized Intel IPP data compression algos
- My manager and mentor highly valued my work and sent good *feedback*