

Andrey DERZHAVIN

✓ derzhavin.aa@phystech.edu derzhavin3016 | derzhav1n

EDUCATION

MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY

2023 - 2025 / Dolgoprudny, Russia

M.S in applied math and physics

MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY

B.S in applied math and physics, honours degree

PHYSICS AND MATH LYCEUM 30

2019 - 2023 / Dolgoprudny, Russia 2017 - 2019 / Saint Petersburg, Russia

EXTRA EDUCATION

"USES AND APPLICATIONS OF C++ LANGUAGE"

Sep 2020 - Apr 2021

MIPT course. Lecturer - K. Vladimirov, Intel.

"SIMULATION TOOLS OF CP AND OS AND LEARNING PROGRAMS' BEHAVIOUR"

Sep - Dec 2020

MIPT course. Lecturer - I. Petushkov, Huawei.

"INDUSTRIAL PROGRAMMING, PART 1, C LANGUAGE."

Sep - Dec 2019

MIPT course. Lecturer - I. Dedinsky, Mail.Ru.

EXPERIENCE

HUAWEI RRI

Jul 2021 - Present / Moscow, Russia

- Led a project related to functional simulation. Participated in cross-project activities.
- Conducted research on improving microarchitectural Design space exploration with low order paremeters. Developed a parallel, simulator-independent framework for finding optimal uArch configuration
- Implemented tool which finds loops in program's CFG using Boost Graph. Conducted research on dynamic cycles classification, estimate potential performance improve from enhancing loop termination prediction using ISA hint

ACRONIS INTERNSHIP

Jul 2020 - Nov 2020 / Remote

- Learned right-context grammars, proposed & investigated several ways of applying them to static analysis of C++ source code
- · Arcticle "Usage of right-context grammars in static analysis of source code on C++", participation in two conferences

PROJECTS _

TRIANGLES

Feb 2022 - May 2022

EDUCATIONAL PROJECT

· Program to check intersection of large amount of triangles

SIM2022 Oct 2022 - Jan 2023

EDUCATIONAL PROJECT

- Functional simulator of RISC-V ISA w/ by-BasicBlock execution, code caching & TLB.
- Implemented autogeneration of decoder from ISA-description.

LEECH-COMPILER Sep 2023 - May 2024

EDUCATIONAL PROJECT FROM 5TH COURSE

• Implementation of compiler IR for custom VM. Developed several popular optimization passes & analyses

SKILLS

PROGRAMMING LANGUAGES C | C++ | Python

SOFTWARE DEVELOPMENT git | make | CMake | Linux (WSL2, Ubuntu) | LATEX

FRAMEWORKS & LIBRARIES LLVM IR | OpenCL | Numpy | Boost

LANGUAGES C2: Russian C1(IELTS): English

EXTRA _

- Interested in compilers, system programming, functional simulation
- · Resolute, hardworking, detail-oriented
- · Hobbies football, history