Andrey Derzhavin

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Education

Physics and math lyceum 30 *2017 – 2019 / Saint Petersburg, Russia*

Moscow Institute of Physics and Techonlogy *2019 – 2023 / Dolgoprudny, Russia*

B.S in applied math and physics

Moscow Institute of Physics and Techonlogy *2023 – 2025 / Dolgoprudny, Russia*

M.S in applied math and physics

Extra Education

"Industrial Programming. Part 1. C language." *Sep – Dec 2019*

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

"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.

Experience

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

Huawei RRI (base chair) *Jul 2021 – Present / Moscow, Russia*

- 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
- Arcticle "Improving loop termination prediction with ISA instruction hinting the number of iteration", participation in MIPT conference
- Conducted research on improving microarchitectural Design space exploration with low order paremeters. Developed a parallel, simulator-independent framework for finding optimal uArch configuration

Projects

Binary Translator *May 2020*

Educational project from 1st course at MIPT

- Program which translates my own processor's binary code into x86 binary code and creates an .exe file

ParaCL *Mar 2021 – Jul 2021*

Educational project from 2nd course

- My own language interpreter with an option to generate a LLVM IR

Triangles *Feb 2022 – Present*

Educational project

- Program to check intersection of large amount of triangles

Skills

Programming Languages C | C++ ***Codegen, Scripting:*** Python

Software Development git | make | CMake | Linux (WSL2, Ubuntu) | LaTeX

Frameworks & Libraries LLVM | OpenCL | Numpy

Languages ***C2:*** Russian ***C1(IELTS):*** English

Extra

- Interested in compilers, system programming
- Resolute, hardworking, non-contentious
- Hobbies – football, history