

# AMADEY VORONTSOV

DREC MIPT Student, C++ developer

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## LANGUAGES

- Russian (native speaker).
- English.

## PROJECTS

Intersection of triangles with Vulkan

**Konstatntin Vladimirov course project**

📅 2-nd course

- This is a C++ program that determines the intersection of triangles in 3D.
- For visualization I used Vulkan-Hpp.

Bitonic sort in OpenCL

**Konstantin Vladimirov course project**

📅 2-nd course

- My implementation of bitonic sorting on the GPU is many times faster than `std::sort()`.

ParaCL Language (in process)

**Konstantin Vladimirov course project**

📅 2-nd course

- It is a language with flex and bison frontend and llvm backend.

LLVM pass

**Sergey Lisitsin course project**

📅 2-nd course

- My pass that collects static and dynamic information about the program and gives a graph with information

Ray-Tracer

**Ilya Dedinsky course project**

📅 2-nd course

- Ray tracer calculates the path of the rays and gives the output image.
- The second stage is the GUI, which allows you to conveniently infuse the scene (something like Zemax).

Compiler

**Ilya Dedinsky course project**

📅 1-nd course

- This is a compiler from my own language to a binary format x86-64 architecture.

## EDUCATION

Moscow Institute Physix and Technologies

**Bachelor degree**

📅 2021 - Present

## SKILLS

C/C++ Assembly Git CMake  
GTest OpenCL Vulkan Shell  
Manjaro Python Dart/Flutter  
LaTeX

## COURSEWORK

- Huawei course by Ilya Dedinsky
- iLab course by Konstantin Vladimirov
- Algorithms and Data Strucures by Sergey Babichev
- LLVM course by Sergey Lisitsin
- Computer Technologies

## QUALITIES

- Willingness to learn.
- Responsibility.
- Self-Motivaion
- Stress Resistance.
- Willingness to spend a lot of time to get things done.

## ACHIEVEMENTS

- 9.125 GPA in all courses last semester
- 10.0 GPA in math courses last semester.

- The compiler also gives a dump in the form of an assembler listing of nasm.
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## Differenciator

### Ilya Dedinsky course project

📅 1-nd course

- The program parses a file with any function and gives the steps for taking the derivative in a TEX file.
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## Akinator

### Ilya Dedinsky course project

📅 1-nd course

- The program uses a binary tree to guess the given character.
  - There is voice output and music.
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## Miptgramm (in process)

### Own project

📅 2-nd course

- This is a final computer science project written on the Flutter framework.
- A cross-platform social network with a microservice architecture adapted to the "needs" of physics, using a server, nosql database and postgres.
- The client part is written in the object-oriented language dart, the server part in python. Interaction via json.