Dunaitsev Alexander

Date of birth: 16.10.1999
City: Moscow
+7 (926)-649-00-06 dunaitsev.alexander@gmail.com dunaitseva dunaitseva

EDUCATION

Bauman Moscow State Technical University **09.2019 – 06.2023**
*Bachelor "Computer-aided design systems" - **CGPA - 4.68*** *Moscow, Russia*

ADDITIONAL EDUCATION

Course "Prepatory program C/C++" Technopark BMSTU 02.2020 – 06.2020

Course "Linux system administration" Technopark BMSTU 02.2020 – 06.2020

Course "Algorithms and data structures" VK Education 09.2021 – 12.2021

Course "System architect" VK Education 02.2022 – 06.2023

PROJECTS

Application for rendering polygonal numbers | C++, SFML, CMake **06.2020**

- Developed application for polygonal numbers rendering as a part of research work "Polygonal numbers and polygonal patterns".
- https://github.com/dunaitseva/NIR

AES algorithm implementation | C++, GitHub Actions, GTest, CMake **01.2021**

- Created C++ library that implements AES (according to FIPS 197, AES is based on the Rijndael symmetric cipher algorithm).
- https://github.com/dunaitseva/AES

Web-application "Hospital" | Python, Flask, HTML, CSS, Bootstrap, MySQL **09.2021**

- As a part of the course work designed web application. Created REST API for hospital management system, using the MVC design pattern.
- https://github.com/dunaitseva/course_project_infosys_bmstu

Heat equation solver for plates | C++, CMake, gnuplot, ANSYS **05.2022**

- Created library that provides finite difference method for solving non-stationary heat equation for metal plates with arbitrary geometry and boundary conditions.
- Developed classes for rendering animation of plate heating.
- https://github.com/dunaitseva/finite-diff-method

SKILLS

Programming languages: C++, C, Python, Bash, SQL, LaTeX
Technologies/Frameworks: STL, Boost, GTest, CMake, Linux, Flask, Git, GitHub Actions, HTML, CSS, Bootstrap

ADDITION

- Test writing experience.
- CI usage experience.
- Used dynamic (valgrind, sanitizers) and static (cpplint, cppcheck, fbinfer, clang-tidy, etc.) code analysis tools.
- Math experience: linear algebra, statistics, optimization methods. Researched and implemented numerical methods algorithms.
- General engineering skills. CAD/CAM systems experience (Siemens NX, Autodesk Inventor).