## MOLOZHAVENKO ALEXANDER | Curriculum Vitae

Moscow Region, Dolgoprudny • J +7-929-668-81-95 molozhavenko.aa@phystech.edu • Moscow Region, Dolgoprudny • J +7-929-668-81-95 GitHub

Third-year student of MIPT, focused on optimization, machine learning and theoretical computer science. Twice awarded among the best students in the 2020/21 and 2021/22 academic year in list of Phystech Foundation for increased scholarships. Mathematical analysis teacher.

**MIPT** 9/2019 - To date

Phystech School of Applied Mathematics and Informatics

**GPA**: 4.92/5 or 8.57/10

## SKILLS & COURSEWORK

PROGRAMMING LANGUAGE **Experienced:** C/C++, Python, ASM (Latex, HTML, markdown)

Familiar: Javascript | bash | CMake | SQL

FRAMEWORKS & TOOLS numpy | matplotlib | pytorch | Git | Windows | Linux | Origin | Jupyter | VSCode |

Vim IDA MPI

MATHEMATICS AND COMPUTER SCIENCE Algorithms and computational models | Linear Programming |

Reverse engineering | PDE and ODE | Operational Systems | Combinatorics | Mathematical and complex analysis | Linear Algebra | Probability Theory |

Applied optimization | Stochastic optimization |

Discrete optimization | Computational math | Stochastic processes

LANGUAGES Native: Russian | Fluent: English (Advanced C1)

MISC General and applied physics | Theoretical mechanics | Quantum mechanics

| Teaching | Return oriented programming

COURSES CMU Information security Course

Coursera combinatorics course | Coursera Yandex c++ course

## Project activities \_\_\_\_\_

RSA ALGORITHM 02/2021 - 05/2021

MIPT

Realization of RSA Algorithm C++

CRYPTO SYSTEM ATTACK 02/2021 - 05/2021

MIPT

Attack on a crypto system C++

IT PROJECT 03/2021 - 04/2021

**MIPT** 

Double pendulum modeling C++

IT PROJECT FOR ACRONIS 04/2021 - 05/2021

Symbolic differentiator pure C with integrated PDF output

STOCHASTIC OPTIMIZATION RESEARCH

03/2022 - Till now

Application of the stochastic smoothing method for solving problems with a zero-order oracle together with Alexander Vladimirovich Gasnikov, work is still in progress, future

development described