MOLOZHAVENKO ALEXANDER | Curriculum Vitae

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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

POGEMA INTEGRATION 07/2022 - 07/2022
MIPT
Integrated non-disappearing mode for POGEMA python backend development

CRYPTO SYSTEM ATTACK 02/2021 - 05/2021
MIPT
Attack on a crypto system C++

REINFORCEMENT LEARNING PROJECT 07/2022 - Till now
AIRI
Deep Q-Learning algorithm for Partially-Observable Grid Environment for Multiple Agents

PURE C PROGRAM FOR DIFFERENTIATION IN LITERALS 04/2021 - 05/2021
MIPT
Symbolic differentiator pure C with integrated PDF output

STOCHASTIC OPTIMIZATION RESEARCH 03/2022 - Till now
MIPT
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