Igor Alentev

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https://github.com/m8dotpie |

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EDUCATION AND TRAINING

28/02/2022 – 01/09/2022 Daejeon, South Korea
B.SC. IN COMPUTER SCIENCE AND ENGINEERING Korea Advanced Institute of Science and Technology (KAIST)

Address 291 Daehak-ro, Yuseong-gu, Daejeon, South Korea | **Website** https://io.kaist.ac.kr/

06/2020 – CURRENT Innopolis, Russia
B.SC. IN COMPUTER SCIENCE AND ENGINEERING Innopolis University (IU)

Address University Str 1, Innopolis, Russia | **Website** https://innopolis.university

01/09/2022 – CURRENT
GRADUATE COURSE IN QUANTUM COMPUTING AND PROGRAMMING QWorld & Faculty of Computing, University of Latvia

Website https://qworld.net/qcourse511-2/

2018 – 2020
COMPETITIVE PROGRAMMING AND ALGORITHMS Foundation "World of Programming"

One of the strongest competitive programming schools in CIS region. The school objective is to prepare students for national and international competitions.

Address Laagna, Estonia (2018, 2019 Summer), Saint-Petersburg/Tver, Russia (2018/2019, Winter) | **Website** https://lksh.ru

2014 – 2020 Maykop, Russia
ACADEMIC OLYMPIAD MATHEMATICS Adyghe State University

Continuous education in competitive programming and mathematics. Topics include geometry, combinatorics, number theory, game theory, set theory, graph theory, relation theory and others. Main goal of the school is to prepare for national and international team-based as well as individual competitions.

Address 208, Pervomayskaya St, Maykop, Russia | **Website** https://remshagu.ru

WORK EXPERIENCE

2020 – CURRENT Innopolis, Russia
MATHEMATICS TEACHER INNOPOLIS UNIVERSITY

Developing study materials in mathematics. Preparing high school students for national and international level academic olympiads in mathematics.
01/11/2022 – 31/12/2022 Innopolis, Russia
JURY MEMBER INNOPOLIS UNIVERSITY

Innopolis Open International Olympiad in Mathematics. Validating and evaluating problem sets. Checking solutions and holding an appeal session.

ADDITIONAL INFORMATION

RESEARCH EXPERIENCE AND PROJECTS

01/10/2022 – CURRENT
Experimental Optimal Robust Control Methods on Physical Robots - Comparison with Industry Standards

The project is a full-scale experimental scientific research of the new control methods, developed in Innopolis Robotics Lab, including critical analysis, and development of supporting code and algorithms if needed.

01/09/2022 – CURRENT
Cart Pole System Embedded Development and Control Techniques Analysis

I and my collegue have to design and embed missing components of the cart pole, develop and API to interact with setup sensors and actuators and hold several experiments with various control techniques. In addition, we would like to implement reinforcement learning on a mechanism to test this technique in real-life scenario.

11/2019 – 11/2019
Combinatorial Analysis of Risk-Weighted-Assets Problem

RWA value optimisation is a well-known problem in economics. My team has proposed a research of the problem from a combinatorial point of view. AESC of Moscow State University has considered it one of the best and published on their website.

Link https://internat.msu.ru/educational-projects/turniry-i-konferentsii/turnir-mm/turnir-mm-2/luchshie-raboty-mamont-2019-best-papers-of-mmc-mammoth-2019/

01/03/2022 – 01/06/2022
Toxic Comments Classification

I and my friend from Innopolis together with two students from National University of Singapore have researched and designed several approaches to successful toxic comments classification in social networks as a term project for KAIST Artificial Intelligence course.

21/08/2022 – 24/08/2022
QTrapTheCat

Game created for Womanium Quantum Hackaton. It uses core principles of a quantum information theory and is built using quantum computing framework to be able to run on a real quantum hardware.

HONOURS AND AWARDS

10/2019
International Mathematical Modelling Tournament – Moscow State University (MSU) IMMT is International Mathematical Modelling Tournament held by MSU and Kolmogorov Boarding School (AESC MSU). Tournament sponsor SberBank proposed an economics problem for the competition. As a team leader, I have suggested an idea to associate the given problem with graph theory and combinatorics and with a team we successfully made a research and gave an award-winning presentation on the final day of the competition. Competition home page.

2019
40th Tournament of Towns – Moscow Center for Continuous Mathematical Education (MCCME) Tournament of Towns is world-wide recognisable international olympiad in mathematics. I'm the winner of **A-level senior spring** round. According to the creators and jury members of the olympiad - **A-level** is comparable in its difficulty with **All-Russian** and **International Mathematical Olympiads.** Competition home page.

02/2019
HSE Programming Contest – Higher School of Economics (HSE) Every academic year **Higher School of Economics** (HSE) holds a national competition for high school competitive programmers. During the final stage of one of the competitions, I have solved all available tasks on time and scored 100/100 points. With this result I was awarded an absolute winner diploma of the **all-Russian** olympiad in competitive programming.

30/09/2021
IBM Quantum Challenge Africa 2021 – IBM IBM holds several competitions in quantum computing. One of them is Quantum Challenge Africa 2021. This competition was offering several tasks in agriculture, economics and chemistry as examples of the tasks quantum computing capable of solving effectively. I have successfully solved all the tasks proposed by the IBM and was awarded **Advanced** Level achievement. Competition home page.

2020
Gold Medal for Academic Excellence – Ministry of Education of Russian Federation Gold medal is considered to be highest possible level of recognition of academic achievements of a high school student. It is given together with a honours diploma for students with all excellent school marks and excellent results in graduation exams.