

Ramazan Rakhmatullin

✉ rrakhmat@uwaterloo.ca | [grumpygordon](#) | Codeforces: [never_giveup](#)

Education

Waterloo University

MASTER OF MATHEMATICS IN COMBINATORICS AND OPTIMIZATION

- Research program; Thesis topic: provably NP-hard inapproximability of matching problems

Waterloo, ON, Canada

January 2023 - April 2024

Higher School of Economics

BACHELOR OF SCIENCE IN APPLIED MATHEMATICS AND COMPUTER SCIENCE

- Machine Learning and Applications, 3.32 GPA
- Thesis topic: computing maximum matching without crossings in convex bipartite graphs and extensions

Moscow, Russia

September 2018 - June 2022

Skills

Fields of interest

Discrete Optimization, Applied Statistics, Machine Learning, Combinatorics, Algorithms and Data Structures, Time efficient implementations in C++, Deep Learning

Languages

C++ (9 years), Python (3 years), Java (2 years)

Other

Pytorch, Numpy, CatBoost, Pandas, Perf, Docker, Bash, Git

Achievements

PERSONAL

- Aug. 2021 **Winner**, [VK Cup](#) The most prestigious programming competition for Russian speaking community
- Sep. 2018 **11th, Gold, National champion**, [IOI](#) The most prestigious high school programming competition
- Feb. 2022 **Winner**, Yandex Profi: National ML/DL competition for Bachelor students (5000\$ first prize)
- Oct. 2021 **3rd**, [IMC Coding Challenge](#) Discrete optimization competition with valuable prizes
- Dec. 2020 **21st**, [Facebook Hacker Cup](#) Over 18,000 students and professionals in a programming competition

Online

Tokyo, Japan

Online

Online

Online

TEAM COMPETITIONS

- Nov. 2022 **9th, Bronze medal, Regional champion**, [ICPC WF Dhaka](#) representing HSE University (as a captain and coach, I set up practice curriculum and team strategy, analyze and fix mistakes)
- Apr. 2020 **6th**, [Google Hash Code](#) Over 100,000 students and professionals in an optimization competition

Dhaka, Bangladesh

Online

Work

Yandex Delivery

SWE & DATA SCIENCE

- Batching of delivery claims, matching of batches with couriers
- Solving NP-hard discrete optimization problem of maximum weighted matching in hypergraph
- Increased main metric (batch rate) by 30%

Moscow, Russia

July 2022 - December 2022

National IOI Team Summer and Winter Camps

COACH

- Intensive training and selection of the national IOI team
- Giving seminars on problem solving techniques
- Creating and preparing complex CS tasks for the selection competitions

Moscow, Sochi, Russia

November 2018 - June 2022

Projects

- Bachelor's [thesis](#) about fast algorithm for computing maximum matching without crossings in convex bipartite graphs, extending [this](#) paper (LIS, self-balancing trees, dynamic programming, tight bounds)
- [Implementation](#) of [paper](#) about dynamic maximum matching in convex bipartite graph (matroid theory, bipartite matchings, self-balancing trees, divide and conquer technique)
- [Research paper](#) about fast ILP algorithms for checking Nash solvability of specific game classes
- Member of jury of the Russian National Olympiad in Informatics
- [DL Homeworks](#) from university course about training deep models from scratch
- Creating and preparing complex tasks for popular CS school competitions: [APIO 2019 A](#), Russian NOI, many others