Ramazan **Rakhmatullin**

✉ rrakhmat@uwaterloo.ca | ⓖ grumpygordon | Codeforces: never_giveup

Education

Waterloo University   *Waterloo, ON, Canada*
MASTER OF MATHEMATICS IN COMBINATORICS AND OPTIMIZATION   *January 2023 - April 2024*

Higher School of Economics   *Moscow, Russia*
BACHELOR OF SCIENCE IN APPLIED MATHEMATICS AND COMPUTER SCIENCE   *September 2018 - June 2022*
- Machine Learning and Applications, 8.04/10 GPA

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	*Online*
Sep. 2018	**11th, Gold, National champion**, IOI The most prestigious high school programming competition	*Tokyo, Japan*
Feb. 2022	**Winner**, Yandex Profi: National ML/DL competition for Bachelor students (5000$ first prize)	*Online*
Oct. 2021	**3rd**, IMC Coding Challenge Discrete optimization competition with valuable prizes	*Online*
Dec. 2020	**21st**, Facebook Hacker Cup Over 18,000 students and professionals in a programming competition	*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)	*Dhaka, Bangladesh*
Apr. 2021	**2nd**, Northern Eurasia Finals ICPC regional competition	*Saint Petersburg, Russia*
Apr. 2020	**6th**, Google Hash Code Over 100,000 students and professionals in an optimization competition	*Online*

Work

Yandex Delivery   *Moscow, Russia*
SWE & DATA SCIENCE   *July 2022 - December 2022*
- 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%

National IOI Team Summer and Winter Camps   *Moscow, Sochi, Russia*
COACH   *November 2018 - June 2022*
- 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

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)

- Coursework 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