

FEDOR GERASIMOV

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EDUCATION

- *Rice University* *Aug 2023 – present*
PhD student, Computational Applied Math and Operations Research, **GPA: 3.87 / 4**
Advisor: Dr. [Matthias Heinkenschloss](#)
MA Thesis title: "Rank-Deficient Least Squares Problems and Subset Selection Algorithms"
- *Moscow Institute of Physics and Technology (MIPT)* *Sep 2019 – Jul 2023*
BSc in Applied Mathematics and Computer Science, **GPA: 4.54 / 5**
Department of Discrete Mathematics
- *Yandex School of Data Analysis* *Sep 2022 – May 2023*
Russia's leading Data Analysis [program](#) curated by Yandex,
the biggest Russian IT company and 2nd largest Russian search engine
- *Lyceum of Math and Physics "The Second School"* *Sep 2016 – Jun 2019*
[Top 4th](#) Russian school by competitiveness of graduates according to RAEX
Gold Medal for Academic Achievement

WORK AND TEACHING EXPERIENCE

- *Teaching Assistant, Rice University* *Jan 2025 – May 2025*
Teaching the course "Introduction to Optimization and Operations Research"
- *Junior Developer, Interfax Digital Solutions* *Oct 2022 – July 2023*
Created algorithms for the reference graph based on
the analysis of media texts.
- *Olympiad Mathematics Coach, Lyceum "The Second School"* *Sep 2020 – May 2021*
Organized a curriculum in advanced olympiad mathematics for 8th grade students

AWARDS

- *All-Russian National Olympiad in Mathematics* *Apr 2019*
Silver medal in the 11th grade ([diploma](#))
- *Moscow Mathematical Conference of High School Students* *Jan 2020*
Best Project Award ([diploma](#) and [publication](#))
- *Higher School of Economics Mathematical Olympiad* *Feb 2018, 2019*
Gold medals in the 10th and 11th grades ([diploma](#) and [diploma](#))
- *Higher School of Economics Olympiad in Mathematics* *Sep 2021*
Bronze medal, junior year ([results](#))
- *Moscow Mathematical Olympiad* *Sep 2019, 2018*
Silver medals in the 10th and 11th grades ([diploma](#))
- *Tournament of Towns* *May 2019*
Silver medal in the 11th grade ([diploma](#))

PUBLICATIONS

- *Andrey S. Shutov, Fedor V. Gerasimov, "On an Interesting Circle in a Triangle"* ([pdf](#)), *Dec 2019*
Moscow Mathematical Conference of High School Students

OTHER RESEARCH EXPERIENCE

- *Bachelor's Thesis Work (honors)* *Sep 2022 – Aug 2023*
Thesis title: Blocking Numbers of Convex Bodies ([text in Russian](#))
Advisor: [Alexander A. Polyanskii](#)
- *Research Experience for Undergraduates at MIPT* *Jun 2021 – Aug 2021*
Worked on problems concerning maximum-sum matchings of points ([link](#))
Research advisor: [Alexander A. Polyanskii](#)
- *Research Practicum for Sophomores* *Sep 2020 – May 2021*
Worked on problems related to the [Bellows conjecture](#) and [Laman graphs](#)
Found a new proof of the rigidity of Laman graphs using the theory of places ([text in Russian](#))
Research advisor: [Alexander A. Polyanskii](#)

MATH PROGRAMS AND CONFERENCES

- *SIAM TX - LA Conference* *Oct 2024*
Presented a poster "Exploring Local Solution Manifolds of Nonlinear Least Squares Problems"
- *International Conference on the Geometry and Topology of 3-Manifolds* ([link](#)) *Sep 2022*
- *Workshop on the Contemporary Problems of Applied Combinatorics* *Jun – Jul 2021*
Gave a talk about the modeling of an epidemic on a random graph
- *School of Contemporary Mathematics* ([link](#)) *Jul 2019, Jul 2020*
- *Preparation for the All-Russian National olympiad in Mathematics* *Jun 2016 – 2019*
A two-week intensive problem-solving workshop for high school students held every season by the Moscow Center of Educational Excellence
- *Summer Maths Program at King's College, London* *Jul 2017*
A three-week lecture and problem-solving course

SKILLS

Languages:

- Russian (mother tongue)
- English (Proficient):
 - TOEFL iBT: *114* ([report](#)) – Nov 2022
 - GRE General: *327* ([report](#)) – Nov 2022
 - Duolingo English Test: *145*([report](#)) – Nov 2022
 - IELTS Test: *7.5* ([report](#)) – Jul 2018
 - Participation in six Summer language schools in the UK from 2012 to 2017

Programming languages:

- Python, C++, R
- MATLAB, Wolfram Mathematica (novice)

Other tools:

- Typesetting languages: L^AT_EX, Markdown
- Optimization Tools: Gurobi

EXTRACURRICULAR ACTIVITIES

Rice Rowing Club

Competitive rowing team at Rice

Jan 2024 – present

Rice ICPC Club

Preparation for competitive programming contests

Aug 2023 – May 2024

MIPT Basketball team

Point guard position

Sep 2019 – May 2021