Nikita Gaevoy

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Education & Career

2019 – Present	MSc in Mathematics at Saint Petersburg University, Russia, program "Advanced Mathematics"
2015 – 2019	BSc in Mathematics at Saint Petersburg University, Russia, program "Mathematics"
2018 – Present	Student Researcher at St. Petersburg Department of Steklov Mathematical Institute of Russian Academy of Sciences

School Education

2011 – 2015	Saint Petersburg Physics and Mathematics Lyceum #30

Research interests

Computational complexity, SAT solvers, lower bounds on algorithms for SAT, proof complexity (existence of optimal proof systems, simulations of proof systems), theoretical aspects of competitive programming (i.e. algorithms and data structures), algorithms for networking

Preprints

- Bochkov, I., Davydow, A., Gaevoy, N., Nikolenko, S.I.: New competitiveness bounds for the shared memory switch. CoRR **abs/1907.04399** (2019), `https://arxiv.org/abs/1907.04399`

- Gaevoy, N.: Hard satisfiable formulas for DPLL algorithms using heuristics with small memory. CoRR **abs/2101.09528** (2021), `https://arxiv.org/abs/2101.09528` (based on Bachelor's thesis)

Bachelor Thesis

Title	The complexity of SAT algorithms
Supervisor	Prof. Edward A. Hirsch
Grade	Excellent

Grants

Participant of the Russian Science Foundation grant no. 17-11-01276.

Teaching Experience

Fall 2020	Teaching assistant on the course "Mathematical foundations of algorithms" for Bachelor's students of program "Mathematics" at Saint Petersburg State University
Spring 2017 – Present	Jury of School SPb SU Cup
Fall 2015 – Present	Guest lecturer and teaching assistant facultative mathematical courses at Physics and Mathematics Lyceum #30
Fall 2018 – Present	Guest lecturer and teaching assistant facultative programming courses at Physics and Mathematics Lyceum #30

Awards

2015, 2016	Scholarships by the Company "Gazprom Neft" prize winner
2015	Participant of the final stage of All-Russian Mathematical Olympiad
2015	Participant of the final stage of All-Russian Programming Olympiad
2015	Awardee of the final stage of All-Russian Team Programming Olympiad
2015	Winner of School Olympiad of the Mathematics and Mechanics faculty of St. Petersburg State University.

Competitive Programming

Codeforces	*@nikgaevoy*
AtCoder	*@nikgaevoy*

Highest Achievements

- RuCode Festival, April 2020, 2nd place (as a member of SPb SU LOUD Enough team)

- VK Cup 2017, 5th place (jointly with Ivan Bochkov)

- Three-time St. Petersburg State University Champion (XLVIII, LIII and LVI)

Contribution to Open Source

Open-source Rust implementation of the improved version of TrueSkill, which was used as base for other implementation for research projects.

Programming Skills

C++ (main language since 2013), Python, Java (+ Android), Rust.