Nikita Karagodin

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Education

2023 - now **Ph.D. in Computer Science** from Massachusetts Institute of Technology
2021 - 2023 **M.Sc. in Mathematics** from Saint Petersburg State University **GPA: 3.93/4.0**
2017 - 2021 **B.Sc. in Mathematics** from Saint Petersburg State University **GPA: 5.0/5.0**
2019 - 2022 **Data Science program** at Computer Science Center **GPA: 4.67/5.0**

Achievements

- **International Mathematical Competition, grand first prize (top 1.5%)** 2020
- Student research competition Möbius Contest, second prize 2021
- Student research competition by HSE & Siberian.Capital, first prize 2022
- International Mathematical Olympiad, silver medal (top 19%) 2016
- Russian Mathematical Olympiad, gold medal (top 4%) 2016

Work Experience

MIT LIDS, Research Assistant September 2023 - now

– Research project on clustering effect for transformers

Huawei Technologies, R&D team, Senior Engineer December 2022 - July 2023

– Designed and implemented experiments using the OpenFL framework to validate research findings and explore new avenues of Federated Learning

EIMI, Researcher June 2021 - August 2023

– Research project on product quantization

Pinely (HFT firm), R&D team, Analyst Intern April 2022 - August 2022

– Analyzed market data using Machine Learning techniques to extract meaningful insights

– Explored cross-exchange arbitrage strategies for crypto markets

St. Petersburg State University, Researcher June 2021 - August 2023

– Research project on random processes and fields with applications to data analysis

Lyceum 239 (St. Petersburg), Math center, Volunteering Teacher 2017 - 2021

Publications

N.Karagodin, **A limit theorem for the last exit time over a moving nonlinear boundary for a Gaussian process**, Probability and Mathematical Statistics, 2022, Vol. 42, Fasc. 2, pages 195 - 217
N.Karagodin, **Energy efficient approximations of Brownian Sheet**, Zapiski POMI (rus), 2022, Vol. 515, pages 141 - 155
N.Karagodin, M.Lifshits, **On the distribution of the last exit time over a slowly growing linear boundary for a Gaussian process**, Theory of Probability and Its Applications, 2021, 66:3, 337–347

Invited talks

On the distribution of the last exit time over a slowly growing boundary for a Gaussian process, 2021
New Trends in Mathematical Stochastics, EIMI