Ludmila Glinskih

PhD Candidate at Boston University, graduating in May 2024
Working on differential privacy, algorithms, computational complexity
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Education

Boston University — 2019 – 2024
PhD (in progress), **MSc**, *Computer Science*
Advisors: Dr. Mark Bun and Dr. Sofya Raskhodnikova

St. Petersburg Academic University RAS — 2015 – 2017
MSc, *Theoretical Computer Science*

Publications

Partial Minimum Branching Program Size Problem is ETH-hard, Ludmila Glinskih and Artur Riazanov, In submission

MCSP is Hard for Read-Once Nondeterministic Branching Programs, Ludmila Glinskih and Artur Riazanov, LATIN 2022

The Complexity of Verifying Boolean Programs as Differentially Private, Mark Bun, Marco Gaboardi, Ludmila Glinskih, IEEE CSF 2022

On Tseitin Formulas, Read-Once Branching Programs and Treewidth, Ludmila Glinskih, Dmitry Itsykson CSR 2019, **Best Paper Award winner**, invited to special issue of Theory of Computing Systems

Satisfiable Tseitin formulas are hard for nondeterministic read-once branching programs, Ludmila Glinskih and Dmitry Itsykson, MFCS 2017

Employment

Tumult Labs — May 2023 – Aug 2023
Scientist Intern
Conducted research on automatic sensitivity bounding and differentially private algorithms.

Simons Institute for the Theory of Computing — Jan 2023 – May 2023
Visiting Researcher
Conducted research on circuit and structural complexity. Participated in a research program on Meta-Complexity.

Google Sunnyvale — May 2022 – Aug 2022
Software Engineering Intern (*Anonymization Team)*
Conducted research and ran analysis of efficiency and accuracy of the various algorithms for sensitivity bounding of differentially private queries in ZetaSQL.

Google San Francisco — May 2021 – Aug 2021
Software Engineering Intern (*Cobalt)*
Added a Golang library for optimal computations of privacy encoding parameters in Cobalt – a framework for differentially private telemetry collection. Implemented a Golang library for fast computations of privacy loss distribution.

Google Zurich — Apr 2019 – Jul 2019
Site Reliability Engineering Intern (*Serving Backend SRE Team)*
Added support of integration testing and multiple integration tests for an internal load testing tool used for testing Google Search. Used internal configuration languages and Python.

St. Petersburg Department of V.A. Steklov Institute of Mathematics RAS — Oct 2017 – Sep 2019
Graduate Researcher (Laboratory of Mathematical Logic)
Conducted research in circuit and proof complexity.

Google London Jun 2017 – Sep 2017
Site Reliability Engineering Intern (*SRE Traffic Team)*
Added dynamical status updates to the internal code review tool from the tool that automatically rebuilds configuration files. Used Golang.

Google Zurich Jul 2016 – Oct 2016
Site Reliability Engineering Intern (*YouTube Core SRE Team)*
Added support of refined estimations of load on YouTube backends to improve resistance of YouTube internal services from overloading by requests from internal users.

FFmpeg May 2015 – Aug 2015
Software Engineering Intern
Built a suite of tests in C for FFmpeg API.

Technical Skills:

C, C++, Python, Golang, JavaScript

Academic Service

Program Committee Member for AAAI PPAI 2024

Reviewer for ICALP 2024, ICALP 2022, ACM STOC 2020, CSR 2019

Advising

Maksim Lonishin and Ilya Kleopatrov Sep 2021 – May 2022
Project: Complexity of Representing Boolean Functions via Branching Programs
A year-long research project of high school students at Lyceum "Physical-Technical High School".

Teaching

Teaching Fellow for CS530: *Graduate Advanced Algorithm*, taught by Steven Homer Fall 2022

Teaching Fellow for CS535: *Graduate Complexity Theory*, taught by Mark Bun Fall 2020

Teaching Assistant for *Complexity Theory and Randomized Algorithms*, taught by Ivan Bliznets Spring 2018

Scholarships and Awards

Early-Career AMS-NSF-Simons-ICM Travel Grant July 2022
To participate in the International Congress of Mathematicians

Dean's Fellowship Fall 2019
Awarded to PhD students at Boston University

CSR 2019 **Best Paper Award** July 2019
Paper: *On Tseitin Formulas, Read-Once Branching Programs and Treewidth*
Ludmila Glinskih, Dmitry Itsykson

TCS Women Travel Scholarship June 2018
To participate in the ACM STOC 2018

Yandex Research Fellowship Fall 2015 – Spring 2017
Awarded to Master's students successful in their research at St. Petersburg Academic University RAS