Ekaterina Shemetova

Curriculum Vitae

katyacyfra@gmail.com
Saint-Petersburg, Russia
https://github.com/katyacyfra

EDUCATION	**Saint-Petersburg Academic University** (September 2019 — present) Ph. D. student in Theoretical Computer Science. **Saint-Petersburg National Research University of Information Technologies, Mechanics and Optics (ITMO University)** (September 2017 — June 2019) Master in Software Engineering, thesis «On the CFL-reachability problem».
WORK EXPERIENCE	**JetBrains**, Researcher, September 2019 – present. **Saint-Petersburg State University**, Research Engineer, January 2019 – present. **Positive Technologies**, Summer internship, Practical information security, 2016. **Knight Frank**, Software Developer, IT-support engineer, June 2012 – September 2017.
RESEARCH INTERESTS	Formal language theory and applications, dynamic graph algorithms, static code analysis, information security, fine-grained complexity.
TEACHING	«Dynamic graph algorithms» block («Graph theory» course, SPSU)
STUDENTS	**Alexandra Olemskaya**, BS student, HSE, February 2021 – June 2021, had her bachelor degree with thesis «On some special cases of the CFL-reachability problem». **Alexandra Istomina**, MS student, SPBSU, February 2021 – present, thesis «Fine-grained reductions around the CFL-reachability problem».
GRANTS	«Logical and algebraic methods in formal language theory» (under supervision of Alexander Okhotin), 2019 — present.
PUBLICATIONS	E. N. Shemetova, S. V. Grigorev, Path querying on acyclic graphs using Boolean grammars, *Proceedings of ISP RAS*, 31:4, 211–226 (2019). E. N. Shemetova, S. V. Grigorev, Path Querying on Acyclic Graphs Using Boolean Grammars. *Program Comput Soft* 47**,** 88–98 (2021). Ekaterina Shemetova, Alexander Okhotin, Semyon Grigorev, Rational index of languages with bounded dimension of parse trees, *Developments in Language Theory* (DLT 2022, Tampa, Florida, USA, 9 -13 May 2022), to appear.
TECHNICAL SKILLS	Java, Kotlin, Scala, Python, PHP, C/C++, Coq, Arend, SQL, Neo4j