CURRICULUM VITAE

PÉTER SZABÓ

Personal Information

Name	Péter Szabó
Date of birth	June 2, 1987
Place of birth	Kalocsa, Hungary
Postal address	Kérő utca 12. 6/37, H-1112 Budapest, Hungary
E-mail	szape@cs.bme.hu
Tel.	*+36 20 955 5944*

Education

2011 – Ph.D. in Mathematics (ongoing)
Budapest University of Technology and Economics, Hungary, Graduate School of Mathematics and Computer Science
Research topic: *Körökkel és utakkal kapcsolatos problémák hipergráfokban (Problems Related to Cycles and Paths in Hypergraphs)*
Advisor: Gyula Y. Katona

2009 – 2011 M.Sc. in Mathematics (with excellent grade)
Budapest University of Technology and Economics, Hungary, Faculty of Natural Sciences
***Thesis*:** *Láncok hipergráfokban (Chains in Hypergraphs)*
Advisor: Gyula Y. Katona

2006 – 2009 B.Sc. in Mathematics (with excellent grade)
Budapest University of Technology and Economics, Hungary, Faculty of Natural Sciences
***Thesis*:** *Merev körű gráfok alkalmazása a numerikus analízisben és a valószínűségi becslésekben (Application of Rigid Circuit Graphs in Numerical Analysis and Probabilistic Estimations)*
***Advisor*:** Mihály Hujter

Previous Jobs

2014 Oct. – 2019 Oct. Research Assistant, Software Developer
MTA SZTAKI[1], Informatics Laboratory, Data Mining and Search Group, Budapest, Hungary
Description*: distributed data processing frameworks (Apache Hadoop, Apache Spark, Apache Flink), deep learning (Jupiter Notebook, Keras), bioinformatics (RetroSeq, MELT)*

[1] Hungarian Academy of Sciences, Institute for Computer Science and Control

2016 Sept. – 2018 Aug. Young Researcher
MTA RAMKI[2], Department of Combinatorics and Discrete Mathematics, Budapest, Hungary
Description: *paths and cycles in hypergraphs (various extremal problems), combinatorics of finite metric spaces (metric betweenness, generalizations of linearity, representation problems)*

2011 Sept. – 2014 June Part-time lecturer as Ph.D. student at
Budapest University of Technology and Economics,
Department of Computer Science and Information Theory
Courses held:
Introduction to Computational Theory 1, practice
Introduction to Computational Theory 2, practice

Fields of Research

- Combinatorics of finite metric spaces
- Extremal problems related to paths and cycles in hypergraphs

Published Papers

P. G. N. Szabó: Symmetric Distance Formula in Kantor Spaces and the Radius of the Circumscribed Sphere of Affinely Independent Set of Points, *Periodica Polytechnica Electrical Engineering and Computer Science* **57** (2013) 115–120

G. Y. Katona, P. G. N. Szabó: Bounds on the Number of Edges in Hypertrees, *Discrete Mathematics* **339**(7) (2016) 1884–1891

P. G. N. Szabó: Bounds on the Number of Edges of Edge-minimal, Edge-maximal and l-hypertrees, *Discussiones Mathematicae Graph Theory* **36** (2016) 259–278

Z. Zvara, P. G. N. Szabó, B. Balázs, A. Benczúr: Optimizing distributed data stream processing by tracing, *Future Generation Computer Systems* **90** (2018) 578–591

Submitted Papers

P. G. N. Szabó: Betweenness Structures of Small Linear Co-Size, submitted to *Discrete Applied Mathematics* in 2018

Conferences & Workshops

http://math.bme.hu/~szape/conferences.html

Languages

Hungarian – native
English – fluent (language exam level B2)
German – elementary

Programming Skills

Java, Scala, Latex – intermediate
Python – novice

[2] Hungarian Academy of Sciences, Alfréd Rényi Institute of Mathematics