

Curriculum Vitae

Jakub Pachocki
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Work experience

2016 – present Harvard School of Engineering and Applied Sciences
Postdoctoral Fellow

Education

2013 – 2016 Carnegie Mellon University
PhD in Computer Science
Thesis: *Graphs and Beyond: Faster Algorithms for High Dimensional Convex Optimization*
Advisor: Gary Miller

2010 – 2013 University of Warsaw
Bachelor's Degree in Computer Science

Publications

author names in alphabetical order

- M. Cohen, Y. T. Lee, G. Miller, J. Pachocki and A. Sidford. Geometric Median in Nearly Linear Time. 48th Annual Symposium on the Theory of Computing (STOC 2016).
- A. Ene, G. Miller, J. Pachocki and A. Sidford. Routing under Balance. 48th Annual Symposium on the Theory of Computing (STOC 2016).
- M. Cygan, F. Fomin, A. Golovnev, A. Kulikov, I. Mihajlin, J. Pachocki and A. Socała. Tight bounds for graph homomorphism and subgraph isomorphism. 27th Annual Symposium on Discrete Algorithms (SODA 2016).
- M. Cohen, C. Musco and J. Pachocki. Online Row Sampling. 19th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX 2016).
- M. Mitzenmacher, J. Pachocki, R. Peng, C. E. Tsourakakis and S. C. Xu. Scalable Large Near-Clique Detection in Large-Scale Networks via Sampling. 21th International Conference on Knowledge Discovery and Data Mining (KDD 2015).
- M. Cohen, G. Miller, R. Kyng, J. Pachocki, R. Peng, A. Rao and S. C. Xu. Solving SDD Systems in Nearly $O(m\sqrt{\log n})$ Time. 46th Annual Symposium on the Theory of Computing (STOC 2014).
- M. Cygan, J. Pachocki, A. Socała. The Hardness of Subgraph Isomorphism. arXiv preprint, 2015.
- M. Cohen, G. Miller, J. Pachocki, R. Peng and S. C. Xu. Stretching stretch. arXiv preprint, 2014.

- M. Cohen, R. Kyng, J. Pachocki, R. Peng and A. Rao. Preconditioning in expectation. arXiv preprint, 2014.
- T. Kociumaka, J. Pachocki, J. Radoszewski, W. Rytter and T. Waleń. On the String Consensus Problem and the Manhattan Sequence Consensus Problem. String Processing and Information Retrieval (SPIRE 2014).
- T. Kociumaka, J. Pachocki, J. Radoszewski, W. Rytter and T. Waleń. Efficient Counting of Square Substrings in a Tree. 23rd International Symposium on Algorithms and Computation (ISAAC 2012).
- Maxime Crochemore, Costas S Iliopoulos, Tomasz Kociumaka, Marcin Kubica, Jakub Pachocki, Jakub Radoszewski, Wojciech Rytter, Wojciech Tyczyński, Tomasz Waleń. A note on efficient computation of all Abelian periods in a string. Information Processing Letters 113.

Internships

- Aug – Dec 2014 Visiting researcher at the Simons Institute for the Theory of Computing, Berkeley, CA
- Nov – Dec 2012 Research with A. Markowetz at the University of Bonn
- Jul – Sep 2012 Software Engineering Intern at Facebook, Inc.
- Jul – Sep 2011 Software Engineering Intern at Facebook, Inc.

Achievements in programming competitions

- World Champion of Google Code Jam 2012
international competition by Google, over 35,000 participants
- Second place (gold medal) in the World Finals of the ACM International Collegiate Programming Contest, 2012
annual team programming competition held since 1977; in 2012, over 2,000 universities participated
- Second place in the TopCoder Open Algorithm tournament, 2012
worldwide programming competition; eight competitors advance to the finals, conducted in front of a live audience
- Winner of the Central European Regional Contest in 2010 and 2011
regional qualifiers for ACM ICPC; seventy teams, seven countries
- Winner of the Governor’s Cup of the Republic of Karelia in 2011 and 2012
all the top Russian teams participate in this competition

Other programming competitions

- present TopCoder rating: 3328 (handle: meret)
- present Codeforces rating: 2655 (handle: meret)
- 2015 Winner of eth1 at CMU (trading contest organized by Jane Street)
- 2015 Winner of the Challenge24 competition
- 2013 Second place in the World Finals of Facebook Hacker Cup 2013
- 2011 Fourth place in the World Finals of Facebook Hacker Cup 2011
- 2011 Fourteenth place in the ACM ICPC World Finals
- 2010, 2011 Winner of Polish Collegiate Programming Contest
- 2011 Third place in the World Finals of Google Code Jam 2011
- 2009 Silver medal in the International Olympiad in Informatics
- 2009 Gold medal in the Central European Olympiad in Informatics
- 2009 Winner of the Baltic Olympiad in Informatics
- 2009 Silver medal in the Middle European Olympiad in Mathematics

Other activities

- 2015 – present Member of Scientific Advisory Board at deepsense.io
- 2011 – 2013 Vice-chair of the Polish Junior Olympiad in Informatics

Scholarships

- 2016 Sansom Graduate Fellowship in Computer Science
- 2011 – 2013 Scholarship for the top ten Computer Science students at the University of Warsaw
- 2011 – 2013 Scholarship of the Polish Ministry of Science and Higher Education
- 2011 – 2012 Scholarship of the Rector of the University of Warsaw
- 2011 – 2012 Scholarship of the Fundation of PKO Bank Polski