

## Curriculum Vitae

# Dávid Pál

### *School Address:*

ATH 4-05  
Department of Computing Science  
University of Alberta  
Edmonton, AB, T6G 2E8, Canada

phone: +1 (780) 248-1435

email: dpal@cs.ualberta.ca

www: <http://webdocs.cs.ualberta.ca/~dpal/>

### *Home Address:*

Apt. 211  
11012 – 82nd Ave NW  
Edmonton, AB, T6G 2P6, Canada

phone: +1 (780) 752-9262

## Education and Employment

- July 2009 – June 2011 Postdoctoral Fellow at Department of Computing Science, University of Alberta, Edmonton, Canada Supervisor: Csaba Szepesvári  
Besides theoretical research in machine learning, I am helping with a project for Alberta Health Services to create a software that would create schedules for nurses in hospitals. I help to develop a formal logical language in which constraints can be specified and implement in Java a compiler from the language into integer constraints.
- Jan. 2005 – May 2009 PhD. in Computer Science, School of Computer Science, University of Waterloo, Waterloo, ON, Canada Advisor: Shai Ben-David  
Thesis: Contributions to Unsupervised and Semi-Supervised Learning
- July 2007 – Sep. 2007 Research Internship at Google, New York City  
I did theoretical research in game theory (web advertisement auctions). The research ended with a conference publication and a U.S. patent.
- June 2004 – Dec. 2004 Programmer at Applied Software Consultants, Bratislava, Slovakia  
I helped developing in C# a database desktop application for elementary and high schools to keep track of their students, their grades etc.
- Sep. 1999 – May 2004 “Magister Degree” in Computer Science, Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovakia  
Advisor: Martin Škoviera Thesis: Steiner Colorings of Cubic Graphs

## Service

- Reviewer for STOC 2008, COLT 2007, 2008, NIPS 2008, 2009, 2010
- 2000 – 2004, 2007 Organizer of the Internet Problem Solving Contest, <http://ipsc.ksp.sk/>
- 1999 – 2004 Organizer of correspondence seminars in mathematics and computer science for Slovak high school students

## Awards

- 2009 co-author of a patent: “Stable Matching Auction” at Google
- 2007 – 2009 David R. Cheriton Scholarship
- 2006 COLT Best Student Paper Award
- 1999, 2000 ACM-ICPC Central European Region, 14th and 15th place
- 1999 Bronze Medal, Central European Olympiad in Informatics
- 1997, 1998, 1999 Top 10 at Slovak National Olympiad in Informatics
- 1999 Top 10 at Slovak National Olympiad in Physics

## Publications

- [1] Gagan Aggarwal, S. Muthukrishnan, Dávid Pál, and Martin Pál. General auction mechanism for search advertising. In *Proceedings of 10th Annual Conference on World Wide Web (WWW 2009), Madrid, Spain*, pages 33–44, 2009.
- [2] Gábor Bartók, Dávid Pál, and Csaba Szepesvári. Toward a classification of partial monitoring games. In *ALT 2010, Canberra, Australia*, 2010.
- [3] Shai Ben-David, Tyler Lu, Teresa Luu, and David Pal. Impossibility theorems for domain adaptation. In *Proceedings of the 13th International Conference on Artificial Intelligence and Statistics (AISTATS 2010), Chia Laguna Resort, Sardinia, Italy*, volume 9, pages 129–136, 2010.
- [4] Shai Ben-David, Tyler Lu, and Dávid Pál. Does unlabeled data provably help? Worst-case analysis of the sample complexity of semi-supervised learning. In Rocco Servedio and Thong Zhang, editors, *Proceedings of 21st Annual Conference on Learning Theory (COLT 2008), Helsinki, Finland*, pages 33–44, 2008.
- [5] Shai Ben-David, Tyler Lu, Dávid Pál, and Miroslava Sotáková. Learning low density separators. In *Proceedings of the 12th International Conference on Artificial Intelligence and Statistics (AISTATS 2009), Clearwater Beach, Florida USA*, volume 5, pages 25–32, 2009.
- [6] Shai Ben-David, Dávid Pál, and Shai Shalev-Shwartz. Agnostic online learning. In Sanjoy Dasgupta and Adam Klivans, editors, *Proceedings of 22nd Annual Conference on Learning Theory (COLT 2009), Montreal, Canada*, pages 33–44, 2009.
- [7] Shai Ben-David, Hans Ulrich Simon, and Dávid Pál. Stability of  $k$ -means clusterings. In Nader H. Bshouty and Claudio Gentile, editors, *Proceedings of 20th Annual Conference on Learning Theory (COLT 2007), San Diego, CA, USA*, pages 20–34. Springer, 2007.
- [8] Shai Ben-David, Ulrike von Luxburg, and Dávid Pál. A sober look at clustering stability. In Gábor Lugosi and Hans Ulrich Simon, editors, *Proceedings of 19th Annual Conference on Learning Theory (COLT 2006), Pittsburg, PA, USA*, pages 5–19. Springer, 2006.
- [9] Tyler Lu, Dávid Pál, and Martin Pál. Contextual multi-armed bandits. In *Proceedings of the 13th International Conference on Artificial Intelligence and Statistics (AISTATS 2010), Chia Laguna Resort, Sardinia, Italy*, volume 9, pages 485–492, 2010.
- [10] Dávid Pál. *Contributions to Unsupervised and Semi-Supervised Learning*. PhD thesis, University of Waterloo, 2009.

- [11] Dávid Pál and Martin Škoviera. Colourings of cubic graphs by small Steiner triple systems. *Graphs and Combinatorics*, 23(2):217–228, 2007.
- [12] Barnabas Poczós, Dávid Pál, and Csaba Szepesvári. Estimation of Rényi entropy and mutual information based on generalized nearest-neighbor graphs. In *NIPS 2010, Vancouver, Canada*, 2010.

## Skills

- C/C++, C#, Java, PHP, Perl, HTML, CSS, Matlab, Maple, LaTeX
- Language skills: fluent English, basic German, native Slovak, quasi-native Czech

## References

Prof. Shai Ben-David  
David R. Cheriton School of Computer Science  
University of Waterloo, ON, Canada  
email: shai@cs.uwaterloo.ca  
www: <http://www.cs.uwaterloo.ca/~shai/>

Prof. Csaba Szepesvári  
Department of Computing Science  
University of Alberta, Edmonton, AB, Canada  
email: szepesva@cs.ualberta.ca  
www: <http://www.ualberta.ca/~szepesva/>

Prof. S. Muthu Muthukrishnan  
Google, Inc. NYC  
& Department of Computer Science  
Rutgers University, Piscataway, NJ, USA  
email: muthu@cs.rutgers.edu  
www: <http://www.cs.rutgers.edu/~muthu/>