

# Panagiotis Papapetrou

Date of birth: 24 July 1981

## Current Position

**Dec 2013 – present Associate Professor**

Department of Computer and Systems Sciences, Stockholm University, Sweden

**Adjunct Professor**

Department of Information and Computer Science, Aalto University, Finland

## Contact Information

Address: Department of Computer and Systems Sciences  
Stockholm University, NOD Building, Borgarfjordsgatan 12, 164 07 Kista, Sweden

e-mail : [panagiotis@dsv.su.se](mailto:panagiotis@dsv.su.se)

Website: <http://people.dsv.su.se/~panagiotis/>

## Higher Education Qualifications

**January 2010 Doctor of Philosophy (Ph.D.) in Computer Science**

Department of Computer Science, Boston University, MA, USA

**January 2007 Master of Arts (M.A.) in Computer Science**

Department of Computer Science, Boston University, MA, USA

**July 2003 Bachelor of Science (B.Sc.) in Computer Science**

Department of Computer Science, University of Ioannina, Greece

## Docent Appointments

**December 2013 Docent in Computer and Systems Sciences**

Department of Computer and Systems Sciences, Stockholm University, Sweden

**May 2013 Docent in Computer Science**

Department of Information and Computer Science, Aalto University, Finland

## Current Position

**Dec 2013 – present Associate Professor**

Department of Computer and Systems Sciences, Stockholm University, Sweden

**Adjunct Professor**

Department of Information and Computer Science, Aalto University, Finland

## Previous Positions

**Sep 2012 – Aug 2013 Lecturer (tenure-track) and Programme Director (IT Applications)**

Department of Computer Science and Information Systems, School of Business, Economics, and Informatics, Birkbeck University of London, United Kingdom

**Sep 2009 – Aug 2012 Postdoctoral Researcher**

Research group: "Data Mining: Theory and Applications", Prof. Heikki Mannila  
Department of Information and Computer Science, Aalto University, Finland

**Jan 2004 – Jul 2009 Research/Teaching Assistant**

M.A./Ph.D. Program, Graduate School of Arts and Sciences,  
Department of Computer Science, Boston University, MA, USA

## Sep 2001 – Jul 2003 **Project Developer and Research Assistant**

Unit of Medical Technology and Intelligent Information Systems (MEDLAB),  
University of Ioannina, Greece

### Academic and Professional Experience

Panagiotis has been appointed general chair of the 15<sup>th</sup> International Symposium on Intelligent Data Analysis 2016. He is serving as associate editor on the editorial board of the Data Mining and Knowledge Discovery Journal as well as on the reviewer board of the Proceedings of the Very Large DataBases Endowment (PVLDB). Moreover, he has served as guest associate editor for the ECML/PKDD Journal track 2014-2015. Panagiotis has also been member of the program committees of several conferences in the area of data mining and databases, including ECML/PKDD 2011-2016, KDD 2011-2012, Discovery Science 2011-2015, Intelligent Data Analysis 2011-2016, and CIKM 2010-2015. He has participated in five NSF grants, two Academy of Finland centers of Excellence, and one 9-month grant by Stockholms Läns Landsting, and has supervised 2 PhD students as main supervisor until completion of their PhD thesis while currently supervising one PhD student as main supervisor. He is member of the Swedish Artificial Intelligence Society and member of IEEE.

### Selected Publications

#### Peer-reviewed original articles:

1. Orestis Kostakis and Panagiotis Papapetrou, "Indexing Sequences of Temporal Intervals." In the Data Mining and Knowledge Discovery Journal (DAMI), To Appear
2. Isak Karlsson, Panagiotis Papapetrou, and Henrik Boström, "Generalized Random Shapelet Forests." In the Data Mining and Knowledge Discovery Journal (DAMI), To Appear
3. Alexios Kotsifakos, Panagiotis Papapetrou, and Vassilis Athitsos, "Query-sensitive Distance Measure Selection for Time Series Nearest Neighbor Classification". Intelligent Data Analysis Journal (IDAJ), 20(1): 5-27, 2016
4. Orestis Kostakis and Panagiotis Papapetrou, "Finding the Longest Common Sub-Pattern in Sequences of Temporal Intervals". In the Data Mining and Knowledge Discovery Journal (DAMI), 29(5): 1178-1210, 2015
5. Alexios Kotsifakos, Alexandra Stefan, Vassilis Athitsos, Gautam Das, and Panagiotis Papapetrou, "DRESS: Dimensionality Reduction for Efficient Sequence Search". In the Data Mining and Knowledge Discovery Journal (DAMI), 29(5): 1280-1311, 2015
6. Alexios Kotsifakos, Panagiotis Papapetrou, Vassilis Athitsos, and Dimitrios Gunopulos, "Embedding-based Subsequence Matching: a query-by-humming application." In the Very Large Databases Journal (VLDBJ), 24(4): 519-536, 2015
7. Jeffrey Lijffijt, Panagiotis Papapetrou, and Kai Puolamaki, "Size Matters: Choosing the Most Informative Set of Window Lengths for Mining Patterns in Event Sequences". In the Data Mining and Knowledge Discovery Journal (DAMI), 29(6): 1838-1864, 2015
8. Jeffrey Lijffijt, Terttu Nevalainen, Tanja Saily, Panagiotis Papapetrou, Kai Puolamaki, and Heikki Mannila, "Significance Testing of Word Frequencies in Corpora". In the Journal of Digital Scholarship in the Humanities (DSH), 2014
9. Andreas Henelius, Kai Puolamaki, Henrik Bostrom, Lars Asker, and Panagiotis Papapetrou, "A Peek into the Black Box: Exploring Classifiers by Randomization". In the Data Mining and Knowledge Discovery Journal (DAMI), Volume 28, Issue 5-6, pp 1503-1529, 2014
10. Jeffrey Lijffijt, Panagiotis Papapetrou, and Kai Puolamaki, "A statistical significance testing approach to mining the most informative set of patterns." In Data Mining and Knowledge Discovery (DAMI), Vol. 28, No. 1, 2014
11. Panagiotis Papapetrou, Gary Benson, and George Kollios, "Mining Poly-regions in DNA." In the International Journal of Data Mining and Bioinformatics (IJDMB), Vol. 6, No. 4, pages 406-428, 2012
12. Panagiotis Papapetrou, Vassilis Athitsos, Michalis Potamias, George Kollios, Dimitrios Gunopulos,

- "Embedding-based subsequence matching in time-series databases." In ACM Transactions on Database Systems (TODS), Vol. 36, Issue 3, Article 17, 2011
13. Alexios Kotsifakos, Panagiotis Papapetrou, Jaakko Hollmén, and Dimitrios Gunopulos, "A Subsequence Matching with Gaps-Range-Tolerances Framework: A Query-By-Humming Application." In Proceedings of the Very Large DataBases Endowment (PVLDB), Vol. 4, Issue 11, pages 761–771, 2011
  14. Panagiotis Papapetrou, George Kollios, Stan Sclaroff, and Dimitrios Gunopulos, "Mining Frequent Arrangements of Temporal Intervals." In Knowledge and Information Systems (KAIS), Vol. 21, Issue 2, pages 133–171, 2010
  15. Panagiotis Papapetrou, Vassilis Athitsos, George Kollios, and Dimitrios Gunopulos, "Reference-Based Alignment in Large Sequence Databases." In Proceedings of the Very Large DataBases Endowment (PVLDB), Vol. 2, Issue 1, pages 205–216, 2009

**Peer-reviewed conference contributions:**

16. Pat Jangyodsuk, Panagiotis Papapetrou, and Vassilis Athitsos, "Optimizing Hashing Functions for Similarity Indexing in Arbitrary Metric and Nonmetric Spaces". SIAM International Conference on Data Mining (SDM), 2015
17. Mohammad Jaber, Panagiotis Papapetrou, Ana Gonzales, and Peter Wood, "Analysing Online Education-based Asynchronous Communication Tools to Detect Students' Roles", (CSEDU), 416-424, 2015
18. Isak Karlsson, Panagiotis Papapetrou, and Henrik Bostrom, "Forests of Randomized Shapelet Trees". International Symposium on Learning and Data Sciences (SLDS), 2015
19. Andreas Henelius, Kai Puolamki, Isak Karlsson, Jing Zhao, Lars Asker, Henrik Bostrom, and Panagiotis Papapetrou, "GoldenEye++: a Closer Look into the Black Box". International Symposium on Learning and Data Sciences (SLDS), 2015
20. Isak Karlsson, Panagiotis Papapetrou, and Lars Asker, "Multi-channel ECG Classification using Forests of Randomized Shapelet Trees". In Proceedings of Pervasive Technologies Related to Assistive Environments (PETRA), 43:1-6, 2015
21. Mohammad Jaber, Panagiotis Papapetrou, Sven Helmer, and Peter Wood, "Using Time-Sensitive Rooted PageRank to Detect Hierarchical Social Relationships". In Proceedings of the International Symposium on Intelligent Data Analysis (IDA), 2014
22. Alexios Kotsifakos and Panagiotis Papapetrou, "Model-based Time Series Classification". In Proceedings of the International Symposium on Intelligent Data Analysis (IDA), 2014
23. Panagiotis Papapetrou and George Roussos, "Social Context Discovery from Temporal App Use Patterns". In the ACM Conference on Ubiquitous Computing Adjunct Publication Proceedings (UbiComp), 2014
24. Mohammad Jaber, Peter Wood, Panagiotis Papapetrou, and Sven Helmer, "Inferring Offline Hierarchical Ties from Online Social Networks". In Proceedings of the WWW Workshop on Connecting Online & Offline Life (WWW), 2014
25. Nikolaos Tselas and Panagiotis Papapetrou, "Classifying Electrocardiograms using time warping methods". In Proceedings of Pervasive Technologies Related to Assistive Environments (PETRA), 2014
26. Thidawan Klaysri, Trevor Fenner, Oded Lachish, Mark Levene, and Panagiotis Papapetrou, "Analysis of Cluster Structure on Large-scale English Wikipedia Category Networks". In Proceedings of the International Symposium on Intelligent Data Analysis (IDA), 2013
27. Alexios Kotsifakos, Panagiotis Papapetrou, and Vassilis Athitsos, "IBSM: Interval-Based Sequence Matching". In Proceedings of the SIAM Conference on Data Mining (SDM), 2013
28. Jeffrey Lijffijt, Panagiotis Papapetrou, Kai Puolamäki, "Size Matters: Finding the Most Informative Set of Window Lengths." In Proc. of the European Conference of Machine Learning and Principles and Practices of Knowledge Discovery in Databases (ECML PKDD), pages 451-466, 2012
29. Panagiotis Papapetrou, Aristides Gionis, Heikki Mannila, "A Shapley Value Approach for Influence Attribution." In Proceedings of the European Conference of Machine Learning and Principles and Practices of Knowledge Discovery in Databases (ECML/PKDD), pages 549–564, 2011
30. Jeffrey Lijffijt, Panagiotis Papapetrou, Kai Puolamäki, Heikki Mannila, "Analyzing Word Frequencies in Large Text Corpora Using Inter-arrival Times and Bootstrapping." In Proceedings of the European Conference of Machine Learning and Principles and Practices of Knowledge Discovery in Databases (ECML/PKDD), pages 341–357, 2011

31. Orestis Kostakis, Panagiotis Papapetrou, Jaakko Hollmén, "ARTEMIS: Assessing the Similarity of Event-Interval Sequences." In Proceedings of the European Conference of Machine Learning and Principles and Practices of Knowledge Discovery in Databases (ECML/PKDD), pages 229–244, 2011
32. Vassilis Athitsos, Panagiotis Papapetrou, Michalis Potamias, George Kollios, and Dimitrios Gunopulos, "Approximate Embedding-Based Subsequence Matching of Time Series." In Proceedings of the ACM Special Interest Group on Management of Data (SIGMOD), pages 365–378, 2008
33. Vassilis Athitsos, Michalis Potamias, Panagiotis Papapetrou, and George Kollios, "Nearest Neighbor Retrieval Using Distance-Based Hashing." In Proceedings of the IEEE International Conference on Data Engineering (ICDE), pages 327–336, 2008