

MANOS PAPAGELIS

YORK UNIVERSITY, LASSONDE SCHOOL OF ENGINEERING
ELECTRICAL ENGINEERING & COMPUTER SCIENCE (LAS 3050)
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RESEARCH INTERESTS

Graph mining, data mining, machine learning, big data & knowledge discovery, city science

EDUCATION

- APR 2015 **PH.D., UNIVERSITY OF TORONTO, CANADA**
Department of Computer Science
Thesis: Understanding and improving online social interactions and processes: methods, algorithms & applications
- MAR 2005 **M.SC., UNIVERSITY OF CRETE, GREECE**
Department of Computer Science
Specialization area: (a) information systems, (b) computer networks and telecommunications
Thesis: Crawling the algorithmic foundations of recommendation technologies
- JUN 2002 **B.SC., UNIVERSITY OF CRETE, GREECE**
Department of Computer Science
Thesis: Study and implementation of user-based recommendation algorithms and their role in the formation of online virtual communities

ACADEMIC APPOINTMENTS

- JUL 2016 – PRESENT **ASSISTANT PROFESSOR, YORK UNIVERSITY, TORONTO, CANADA**
Lassonde School of Engineering
Department of Electrical Engineering & Computer Science
Research interests: data mining, graph mining, machine learning, big data
- AUG 2015 – JUL 2016 **LECTURER & POSTDOCTORAL SCHOLAR, UNIVERSITY OF CALIFORNIA, BERKELEY**
UC Berkeley School of Information (iSchool)
Research interests: data mining, graph mining, machine learning, big data
- SEP 2010 – APR 2015 **SESSIONAL LECTURER/COURSE INSTRUCTOR, UNIVERSITY OF TORONTO, CANADA**
Department of Computer Science
Teaching focus: databases, systems, programming

HONORS & AWARDS

- JUN 2018 19TH IEEE INTERNATIONAL CONFERENCE ON MOBILE DATA MANAGEMENT (IEEE MDM 2018) – Best Paper Award
- JAN 2018 26TH ACM INTERNATIONAL CONFERENCE ON INFORMATION AND KNOWLEDGE MANAGEMENT (ACM CIKM 2017) – Outstanding Reviewer Award
- AUG 2015 – JUL 2016 UNIVERSITY OF CALIFORNIA, BERKELEY – Postdoctoral Fellowship
- JAN 2011 ELSEVIER ENGINEERING APPLICATIONS OF AI – Top Cited Article 2005-2010 award
- JAN 2011 – DEC 2012 UNIVERSITY OF TORONTO – Platform Computing Graduate Fellowship in CS
- SEP 2005 – SEP 2010 UNIVERSITY OF TORONTO – Graduate Fellowship
- JUN 2010 – AUG 2010 YAHOO! RESEARCH – Research Internship Fellowship
- MAY 2009 – JUL 2009 YAHOO! RESEARCH – Research Internship Fellowship
- SEP 2004 – MAY 2005 EUROPEAN UNION – Award for “Innovative Ideas Worth Funding”
- FEB 2005 – JUL 2005 FOUNDATION OF RESEARCH & TECHNOLOGY, HELLAS (FORTH) – Training and Specialization Fellowship
- FEB 2003 – JAN 2005 FOUNDATION OF RESEARCH & TECHNOLOGY, HELLAS (FORTH) – Graduate Fellowship

SEP 2002 – FEB 2003 FOUNDATION OF RESEARCH & TECHNOLOGY, HELLAS (FORTH) – Training and Specialization Fellowship
SEP 1992 – SEP 1997 GREEK MINISTRY OF EDUCATION – Honors Award for Excellence in Education

OTHER EMPLOYMENT & WORK EXPERIENCE

SEP 2005 – AUG 2017 **SYSTEM ARCHITECT & ENGINEER, ONLINE SERVICE, SELF-EMPLOYED**
Design, development and distribution of a World-class online conference management system (www.confious.com)

SEP 2012 – JUL 2015 **RESEARCH FELLOW AND SOFTWARE ARCHITECT, UNIVERSITY OF TORONTO, CANADA**
Department of Computer Science / Department of Civil Engineering
Interdisciplinary research project on sustainable buildings and big data

SEP 2005 – APR 2015 **RESEARCH FELLOW/ASSISTANT, UNIVERSITY OF TORONTO, CANADA**
Department of Computer Science
Research interests in data mining, graph mining, databases, knowledge discovery

SEP 2005 – SEP 2010 **TEACHING ASSISTANT, UNIVERSITY OF TORONTO, CANADA**
Department of Computer Science
Courses: introduction to databases, software engineering, web programming, information systems analysis and design, computer science for the sciences, software tools and systems programming, data base management systems.

JUN 2010 – AUG 2010 **RESEARCH INTERN, YAHOO! RESEARCH, BARCELONA, SPAIN**
Usage Mining and Link Analysis Group
Research related to (i) influence maximization in online social media, (ii) graph augmentation algorithms

MAY 2009 – JUL 2009 **RESEARCH INTERN, YAHOO! RESEARCH, BARCELONA, SPAIN**
Social Media Group
Research related to (i) social influence in online social media, (ii) models of user credibility in online social media

JUN 2005 – JUL 2005 **VOLUNTEER INSTRUCTOR, MUNICIPALITY OF HERAKLION, CRETE, GREECE**
Course: Introduction to computing

JAN 2003 – JAN 2005 **TEACHING ASSISTANT, UNIVERSITY OF CRETE, GREECE**
Department of Computer Science
Courses: data base management systems, web programming, business process and workflow management systems

SEP 2002 – AUG 2005 **RESEARCH FELLOW, FOUNDATION OF RESEARCH AND TECHNOLOGY HELLAS (FORTH), GREECE**
Institute of Computer Science (ICS), Information Systems Laboratory
Research related to (i) personalization, (ii) recommendation algorithms, (iii) information integration

OCT 1999 – SEP 2001 **CO-FOUNDER & SOFTWARE ENGINEER, ATLANTIS GROUP**
R&D Group at the Department of Computer Science, University of Crete, Greece
Design and development of web portals and mobile services

AFFILIATIONS

Member, EECS Department Faculty, Lassonde School of Engineering, York University
Member, Graduate Program in Electrical Engineering & Computer Science, York University
Member/PI, Data Mining Lab, EECS Department, York University
Member/Co-PI, BRAIN Alliance (Big Data Research, Analytics, Information Networks)
Member/Co-PI, Data Visualization and Analytics Training Program (NSERC CREATE DAV)
Member/Co-PI, Dependable Internet of Things Applications (NSERC CREATE DITA)
Member/Co-PI, Center for Innovation in Computing @ Lassonde (IC@L)
Member, Association for Computing Machinery (ACM)
Member, Institute of Electrical and Electronics Engineers (IEEE)

JOURNAL ARTICLES (PEER-REVIEWED)

- [J6] Sawas, A., Abuolaim, A., Afifi, & M., Papagelis, M. (2019). Tensor methods for group pattern discovery of pedestrian trajectories. *GeoInformatica*, vol.X, no.X, 2019. (**impact factor: 2.091 / invited in “Best of the 19th IEEE International Conference on Mobile Data Management (IEEE MDM 2018)” special issue of GeoInformatica**). Submitted.
- [J5] El-Diraby, T., Krijnen, T., & Papagelis, M. (2017). BIM-based collaborative design and socio-technical analytics of green buildings. *Automation in Construction (AiC)*, 82, 59-74. (**impact factor: 4.032**)
- [J4] Papagelis, M. (2015). Refining social graph connectivity via shortcut edge addition. *ACM Transactions on Knowledge Discovery from Data (TKDD)*, 10(2), 12. (**impact factor: 1.895**)
- [J3] Papagelis, M., Das, G., & Koudas, N. (2013). Sampling online social networks. *IEEE Transactions on Knowledge and Data Engineering (TKDE)* 25(3), 662-676. (**impact factor: 3.438**)
- [J2] Doerr, M., & Papagelis, M. (2007). A method for estimating the precision of placename matching. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 19(8), 1089-1101. (**impact factor: 3.438**)
- [J1] Papagelis, M., & Plexousakis, D. (2005). Qualitative analysis of user-based and item-based prediction algorithms for recommendation agents. *Engineering Applications of Artificial Intelligence (EAAI)*, 18(7), 781-789. (**impact factor: 2.819 / Elsevier EAAI top cited article 2005-2010 award**)

CONFERENCE PAPERS (PEER-REVIEWED)

- [C19] Heidari, F. & Papagelis, M. (2018). EvoNRL: Evolving network representation learning based on random walks. In *Proceedings of the 7th International Conference on Complex Networks and Their Applications (Complex Networks 2018)*.
- [C18] Pechlivanoglou, T. & Papagelis, M. (2018). Fast and accurate mining of node importance in trajectory networks. In *Proceedings of the 6th IEEE International Conference on Big Data (IEEE Big Data 2018)*.
- [C17] Agrawal, A., An, A., & Papagelis, M. (2018). Learning emotion-enriched word representations. In *Proceedings of the 27th International Conference on Computational Linguistics (COLING 2018)*.
- [C16] Sawas, A., Abuolaim, A., Afifi, & M., Papagelis, M. (2018). Tensor methods for group pattern discovery of pedestrian trajectories. In *Proceedings of the 19th IEEE International Conference on Mobile Data Management (IEEE MDM 2018)*. (**best paper award**).
- [C15] Sawas, A., Abuolaim, A., Afifi, & M., Papagelis, M. (2018). Trajectolizer: interactive analysis and exploration of trajectory group dynamics. In *Proceedings of the 19th IEEE International Conference on Mobile Data Management (IEEE MDM 2018)*.
- [C14] El-Diraby, T., Krijnen, T. F., & Papagelis, M. (2016). Green 2.0: socio-technical analytics of green buildings. In *Proceedings of the International Conference on Smart Infrastructure and Construction (ICSIC 2016)*.
- [C13] Papagelis, M., Krijnen, T. F., Elshenawy, M., Konomi, T., Fang, R., & El-Diraby, T. (2016). Green2. 0: enabling complex interactions between buildings and people. In *Proceedings of the 19th ACM Conference on Computer Supported Cooperative Work and Social Computing Companion*, pp. 77-80 (ACM CSCW 2016).
- [C12] Papagelis, M. (2015). Refining social graph connectivity via shortcut edge addition. In *Proceedings of the 13rd Hellenic Data Management Symposium (HDMS 2015)*.
- [C11] Redmond, A., El-Diraby, T., & Papagelis, M. (2015). Employing an exploratory research stage to evaluate green building technologies for sustainable systems. In *Proceedings of the International Conference on Civil, Structural and Transportation Engineering (ICCSTE 2015)*.
- [C10] Papagelis, M., Bonchi, F., & Gionis, A. (2011). Suggesting ghost edges for a smaller world. In *Proceedings of the 20th ACM International Conference on Information and Knowledge Management*, pp2305-2308 (ACM CIKM 2011).

- [C9] Papagelis, M., Murdock, V., & van Zwol, R. (2011). Individual behavior and social influence in online social systems. In Proceedings of the 22nd ACM conference on Hypertext and hypermedia, pp. 241-250 (ACM HyperText 2011).
- [C8] Papagelis, M., Bansal, N., & Koudas, N. (2009). Information cascades in the blogosphere: a look Behind the Curtain. In Proceedings of the 3rd AAAI International Conference on Web and Social Media, pp. 292-295 (ICWSM 2009).
- [C7] Papagelis, A., Papagelis, M., & Zaroliagis, C. (2008). Enabling social navigation on the web. In Proceedings of the 3rd IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology, pp. 162-168 (IEEE WI-IAT 2008).
- [C6] Papagelis, A., Papagelis, M., & Zaroliagis, C. (2008). Iclone: towards online social navigation. In Proceedings of the 19th ACM conference on Hypertext and Hypermedia, pp. 237-238 (ACM HyperText 2008).
- [C5] Papagelis, M., Plexousakis, D., & Nikolaou, P. N. (2005). Confious: managing the electronic submission and reviewing process of scientific conferences. In Proceedings of the 6th International Conference on Web Information Systems Engineering, pp. 711-720 (ACM WISE 2005).
- [C4] Papagelis, M., Plexousakis, D., & Kutsuras, T. (2005). Alleviating the sparsity problem of collaborative filtering using trust inferences. In Proceedings of the 3rd International Conference on Trust Management, pp. 224-239 (iTrust 2005).
- [C3] Papagelis, M., Rousidis, I., Plexousakis, D., & Theoharopoulos, E. (2005). Incremental collaborative filtering for highly-scalable recommendation algorithms. In Proceedings of the 15th International Symposium on Methodologies for Intelligent Systems, pp. 553-561 (ISMIS 2005).
- [C2] Papagelis, M., & Plexousakis, D. (2004). Qualitative analysis of user-based and item-based prediction algorithms for recommendation systems. In Proceedings of the 3rd Hellenic Data Management Symposium (HDMS 2004).
- [C1] Papagelis, M., & Plexousakis, D. (2003). Recommendation based discovery of dynamic virtual communities. In Proceedings of the 15th International Conference on Advanced Information Systems Engineering, pp. 197-200 (CAiSE 2003).

WORKSHOP PAPERS (PEER-REVIEWED)

- [W4] Chen, B. X., Sahdev, R. Wu, D., Zhao, X., Papagelis, M., & Tsotsos, J. K. (2018). Scene classification in indoor environments for robots using context based word embeddings. In Proceedings of the IEEE International Conference on Robotics and Automation - Multimodal Robot Perception Workshop (ICRA 2018 Workshops).
- [W3] Das, G., Koudas, N., Papagelis, M., & Puttaswamy, S. (2008). Efficient sampling of information in social networks. In Proceedings of the 2008 ACM Workshop on Search in Social Media (SSM), pp. 67-74 (ACM Conference on Information and Knowledge Management 2008 Workshop).
- [W2] Doerr, M., & Papagelis, M. (2004). Precision estimation for matching place names to a digital gazetteer. In proceedings of the 3rd European NKOS Workshop: User-centred approaches to Networked Knowledge Organization Systems/Service (ECDL 2004/NKOS Workshop).
- [W1] Papagelis, M., & Plexousakis, D. (2004). Qualitative analysis of user-based and item-based prediction algorithms for recommendation agents. In Proceedings of the International Workshop on Cooperative Information Agents, pp. 152-166 (CIA 2004).

MAGAZINE ARTICLES (PEER-REVIEWED)

- [M1] Papagelis, M., & Plexousakis, D. (2006). CONFIOUS: Conference Management System with Intelligence, Power and Style. ERCIM NEWS Magazine, Vol. 64, Jan, 2006.

TECHNICAL REPORTS (NON-REFEREED)

- [TR3] Papagelis, M., Bansal, N., & Koudas, N. (2009). Engagement and reaction in the blogosphere. Supplementary material of the article "Papagelis, M., Bansal, N., & Koudas, N. (2009). Information cascades in the blogosphere: a look behind the curtain. In Proceedings of the 3rd AAAI International Conference on Web and Social Media, pp. 292-295 (ICWSM 2009)."

[TR2] Doerr, M., & Papagelis, M. (2004). Description of application based on the Alexandria digital gazetteer protocol. Available online at the Alexandria Digital Library (2004)

[TR1] Papagelis, M., & Plexousakis, D. (2003). Recommendation based discovery of dynamic virtual communities. Movie Recommendation System (MRS) Overview.

THESES

[T3] Papagelis, M. (2015). Understanding and improving online social interactions and processes: methods, algorithms & applications. Ph.D. thesis, Department of Computer Science, University of Toronto, Canada.

[T2] Papagelis, M. (2005). Crawling the algorithmic foundations of recommendation technologies. M.Sc. thesis, Department of Computer Science, University of Crete, Greece.

[T1] Papagelis, M. (2003). Study and implementation of user-based recommendation algorithms and their role in the formation of online virtual communities. B.Sc. thesis, Department of Computer Science, University of Crete, Greece.

PATENTS (APPLIED FOR)

[P3] El-Diraby, T., Papagelis, M., Krijnen, T. (2016). System and methods for online socio-technical analysis of buildings. US Patent App. submitted 2016/08/01. Status: applied for.

[P2] Murdock, V., van Zowl, R., Papagelis, M. (2012). Measuring or Estimating User Credibility. US Patent App. 12/898,644, 2012. Status: applied for.

PATENTS (GRANTED)

[P1] Murdock, V., van Zowl, R., Papagelis, M. (2016). Media or content tagging determined by user credibility signals". US Patent 9,529,822.

CONTRIBUTIONS TO THE PROFESSION

ACADEMIC JOURNAL EDITORIAL ACTIVITIES (REVIEWER / EXTERNAL REVIEWER)

2018/4 – 2018/6	Reviewer, IEEE Internet of Things (IoT)
2018/8 – 2018/9	Reviewer, IEEE Networking Letters (NL)
2014/6 – 2017/9	Reviewer, The Proceedings of the VLDB Endowment (PVLDB)
2017/5 – 2017/6	Reviewer, Springer Machine Learning (MACH)
2017/4 – 2017/6	Reviewer, ACM Transactions on the Web (TWEB)
2017/4 – 2017/5	Reviewer, Computer and Informatics (CAI)
2016/5 – 2017/3	Reviewer, IEEE Transactions on Knowledge and Data Engineering (TKDE)
2012/9 – 2016/10	Reviewer, Social Network Analysis and Mining (SNAM)
2016/7 – 2016/9	Reviewer, Internet Mathematics (IM)
2016/1 – 2016/3	Reviewer, Applied Network Science (ANS)
2015/10 – 2016/3	Reviewer, ACM Transactions on Knowledge Discovery from Data (TKDD)
2015/2 – 2015/11	Reviewer, Knowledge and Information Systems (KAIS)
2014/12 – 2015/1	Reviewer, ACM Transactions on Internet Technology (TOIT)
2014/9 – 2014/10	Reviewer, IEEE Journal of Selected Topics in Signal Processing (J-STSP)
2014/1 – 2014/3	Reviewer, ACM Transactions on Database Systems (TODS)
2013/5 – 2013/6	Reviewer, Frontiers of Computer Science (FCS)
2012/12 – 2013/2	Reviewer, Information Sciences (IS)
2012/7 – 2012/9	Reviewer, IEEE Transactions on Information Forensics and Security (TIFS)
2007/5 – 2011/4	Reviewer, International Journal on Artificial Intelligence Tools (IJAIT)
2006/6 – 2006/7	Reviewer, Information Systems (IS)

CONFERENCE PROGRAM COMMITTEE MEMBER / REVIEWER

- 2018 Program Committee Member, 25th ACM Conference on Information and Knowledge Management (ACM CIKM 2018)
- 2018 Reviewer, 44th International Workshop on Graph-Theoretic Concepts in Computer Science (WG 2018)
- 2018 Program Committee Member, 23rd IEEE Symposium on Computers and Communications (IEEE ISCC 2018)
- 2017 Program Committee Member, 26th ACM Conference on Information and Knowledge Management (ACM CIKM 2017)
- 2017 Reviewer, 16th International Symposium on Experimental Algorithms (SEA 2017)
- 2017 Program Committee Member, 22nd IEEE Symposium on Computers and Communications (IEEE ISCC 2017)
- 2015 Reviewer, 31st IEEE International Conference on Data Engineering (IEEE ICDE 2015)
- 2015 Reviewer, 18th International Conference on Extending Database Technology (EDBT 2015)
- 2014 Reviewer, 17th International Conference on Extending Database Technology (EDBT 2014)
- 2014 Reviewer, 20th ACM International Conference on Knowledge Discovery and Data Mining (ACM KDD 2014)
- 2013 Reviewer, 19th ACM International Conference on Knowledge Discovery and Data Mining (ACM KDD 2013)
- 2012 Reviewer, 23rd ACM Conference on Hypertext and Social Media (ACM HyperText 2012)
- 2010 Reviewer, 19th International World Wide Web Conference (WWW 2010)
- 2010 Reviewer, 19th ACM Conference on Information and Knowledge Management (ACM CIKM 2010)
- 2010 Reviewer, 21st ACM Conference on Hypertext and Social Media (ACM HyperText 2010)
- 2008 Reviewer, 14th ACM International Conference on Knowledge Discovery and Data Mining (ACM KDD 2008)
- 2007 Reviewer, 13th ACM International Conference on Knowledge Discovery and Data Mining (ACM KDD 2007)
- 2005 Reviewer, 4th International Semantic Web Conference (ISWC 2005)
- 2004 Reviewer, 3rd International Semantic Web Conference (ISWC 2004)

WORKSHOP PROGRAM COMMITTEE MEMBER / REVIEWER

- 2011 Program Committee Member, 3rd International Workshop on Search and Mining User-generated Content (ACM SMUC 2011)
- 2010 Program Committee Member, 2nd International Workshop on Search and Mining User-generated Content (ACM SMUC 2010)
- 2009 Program Committee Member, 1st International Workshop on Monitoring Social Media (MSM 2009)

GRANTS REFEREED

- 2018 Mitacs Accelerate Entrepreneur (MITACS ACCELERATE)
- 2017 The Canada-Israel Industrial Research and Development Foundation (CIIRDF)

PROFESSIONAL ASSOCIATIONS

- Member, Association for Computing Machinery (ACM)
- Member, Institute of Electrical and Electronics Engineers (IEEE)