

# CURRICULUM VITAE: Georgios Paliouras

## Personal Information

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**Date of Birth:** 14 - 10 - 1970  
**Address:** Office: Inst. of Informatics and Telecommunications, NCSR "Demokritos",  
15310 Ag. Paraskevi, Athens, Greece  
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**Google scholar:** <http://scholar.google.com/citations?user=-pec7wIAAAAJ>

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## Education

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**1993 - 1997** University of Manchester, UK: **Ph.D. in Computer Science**  
Thesis: "Refinement of Temporal Constraints in Event Recognition Systems using Small Datasets"  
Funded by: Thomson Marconi Sonar UK Ltd. and Engineering and Physical Sciences Research Council (EPSRC), UK

**1992 - 1993** University of Manchester, UK: **MSc (by research) in Computer Science**  
Thesis: "Scalability of Machine Learning Algorithms"  
Funded by: EPSRC, UK

**1988 - 1992** University of Central Lancashire, UK: **BSc (Hons.) in Computing (Major) and Economics (Minor)**

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## Work Experience

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**2009 – today** (part time) **Head of the Division of Intelligent Information Systems, Inst. of Informatics and Telecom., NCSR "Demokritos"**

**2000 – today** (full time) **Researcher at the Inst. of Informatics and Telecom., NCSR "Demokritos",**  
*Research and management* in the context of 38 research projects, in the areas of: machine learning, knowledge discovery, data mining, Web mining, text mining, personalization, user modelling, information filtering, information extraction, ontology learning, event recognition.  
*Supervision* of 40 undergraduate and postgraduate and 8 doctoral students.

**2004 – today** (part time) **Co-founder and board member of the start-up company i-sieve technologies Ltd.**  
Research and development of intelligent content filtering technologies for the Internet.

**2003-2004** (part time) **Responsible for the postgraduate course "Machine Learning – Knowledge Discovery from Data", Department of Information and Communication Systems Engineering, University of the Aegean**

**2002-2006** (part time) **Lecturer in postgraduate course at the Institute of Language and Speech Processing**  
*Lectures* on Information Extraction for a Computational Linguistics course.

**1998-2000** (full-time) **Research Associate at the Inst. of Informatics and Telecom., NCSR "Demokritos",**  
*Research and development* in the context of 6 research projects, in the areas of: machine learning, knowledge discovery, data mining, Web mining, text mining, personalization, user modelling, information filtering, information extraction.

**1997-1998** (part-time) *Supervision* of undergraduate University students.

**1998-1999** (part time) **Teacher at the Institute of Professional Training (Min. of Employment)**  
*Teaching* of UNIX, WORD, MS WINDOWS, MS DOS in professional seminars.

**1997-1998** (full time) **Military service in the Greek Navy**  
*System administration and database programming* for financial applications.

**1992-1996** **Teaching assistant Computer Science University of Manchester, UK**

- (part time) *Laboratory and lecture assistance* in various computer science courses, including knowledge based systems, neural networks, programming languages and databases.
- 1990-1991** **Programmer in Siemens AG, Karlsruhe, Germany**  
(full time) *Software Development* in the Automated Control Systems Group: data compression tools, debugging tools, databases.
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### **Selected Research and Development Projects (Complete list on my Web site)**

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- Project coordinator**, SPEEDD: Scalable Proactive Event-Driven Decision making, FP7 ICT project (Start 2014). Project Budget: €4,258,040, NCSR “Demokritos” budget: €612,200.
- Scientific Manager for NCSR "Demokritos"**, REVEAL: REVEALing hidden concepts in Social Media. FP7 ICT project (Start 2013). NCSR “Demokritos” budget: €614,821.
- Project coordinator**, BioASQ: A challenge on large-scale biomedical semantic indexing and question answering, FP7 ICT project (Start 2012). Project Budget: €1,379,926, NCSR “Demokritos” budget: €357,132.
- Scientific Manager for NCSR "Demokritos"**, PRONTO: Event Recognition for Intelligent Resource Management. FP7 ICT project (2009-2012). NCSR “Demokritos” budget: €711,530
- Scientific Manager for NCSR "Demokritos"**, SYNC3: Synergetic Content Creation and Communication. FP7 ICT project (2009-2012). NCSR “Demokritos” budget: €693,675
- Scientific Manager for NCSR "Demokritos"**, CASAM: Computer-Aided Semantic Analysis of Multimedia. FP7 ICT project (2008-2011). NCSR “Demokritos” budget: €831,850.
- Scientific Manager for NCSR "Demokritos"**, SERVIVE: SERVICE oriented Intelligent Value adding nEtnetwork for clothing-SMEs embarking in mass-customisation. FP7 ICT project (2008-2011). NCSR “Demokritos” budget: €273,638.
- Technical Manager**, BOEMIE: Bootstrapping Ontology Evolution with Multimedia Information Extraction. FP6 IST project (2006-2009). Project Budget: €4,927,189, NCSR “Demokritos” budget: €1,666,193.
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### **Review and Evaluation Assignments**

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- Expert evaluator of research projects and project proposals for the European Commission, since 2004.
  - Evaluator for projects and research proposals for the Greek Secretariat for Research and Technology, since 2006.
  - Reviewer or member of the programme committee in 92 conferences and workshops, among which the International Joint Conference on Artificial Intelligence and the European Conference on Artificial Intelligence.
  - Regular member of the programme committee of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD), User Modelling Adaptation and Personalization Conference (UMAP), International Colloquium on Grammatical Inference (ICGI).
  - Reviewer for various international journals, including the Journal of Machine Learning Research, IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Neural Networks, ACM Transactions on Internet Technologies, ACM Transactions on Information Systems.
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### **Other Community Activities**

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- Board member (2004-2008) of the International Committee on Grammatical Inference.
- Gen. Secretary (2000-2002) and Treasurer (2002-2004) of the Hellenic Association for AI (EETN).
- **Editorial board member** of the journals: User Modeling and User-Adapted Interfaces, Computational Intelligence and the online magazine: Real-Time Business Insights.
- **Chair** of the International User Modelling Conference (UM), 2007.

- **Chair** of the International Colloquium on Grammatical Inference (ICGI), 2004.
- Area chair of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD), 2007.
- Co-organiser of various workshops.

### **Indicative Publications** (Complete list on my Web site)

3262 citations to my papers according to Google Scholar in September 2013

A. Skarlatidis, A. Artikis, J. Filippou and G. Paliouras, “**A Probabilistic Logic Programming Event Calculus**,” Special Issue on Probability, Logic and Learning, J. Cussens, L. De Raedt, A. Kimmig and T. Sato (editors), *Theory and Practice of Logic Programming*. (to appear)

A. Artikis, A. Skarlatidis, F. Portet and G. Paliouras, “**Logic-Based Event Recognition**,” *The Knowledge Engineering Review*, v.27, n.4, pp. 469-506, 2012.

G. Paliouras, “**Discovery of Web user communities and their role in personalization**,” Special Issue on Coming of Age: Celebrating a Quarter Century of User Modeling and Personalization, J. Kay and G. McCalla (editors), *User Modeling and User-Adapted Interaction*, v. 22, n. 1-2, pp. 151-175, 2012.

A. Artikis, M. Sergot and G. Paliouras, “**Run-time composite event recognition**,” In *Proceedings of the 6th ACM International Conference on Distributed Event-Based Systems (DEBS)*, pp. 69-80, 2012.

E. Zavitsanos, G. Paliouras and G. Vouros, “**Non-Parametric Estimation of Topic Hierarchies from Texts with Hierarchical Dirichlet Processes**,” *Journal of Machine Learning Research*, v. 12, pp. 2749-2775, 2011.

E. Zavitsanos, G. Paliouras and G. Vouros, “**Gold Standard Evaluation of Ontology Learning Methods Through Ontology Transformation and Alignment**,” *IEEE Transactions on Knowledge and Data Engineering*, v. 23, n. 11, pp. 1635-1648, 2011.

G. Paliouras, C.D. Spyropoulos and G. Tsatsaronis (editors), *Knowledge-Driven Multimedia Information Extraction and Ontology Evolution - Bridging the Semantic Gap*, Lecture Notes in Artificial Intelligence n. 6050, Springer-Verlag, 2011.

A. Skarlatidis, G. Paliouras, G. Vouros and A. Artikis, “**Probabilistic Event Calculus based on Markov Logic Networks**,” In *Proceedings of the 5th International Symposium on Rules: Research Based and Industry Focused (RuleML)*, *Lecture Notes in Computer Science*, n. 7018, pp. 155-170, Springer Verlag, 2011.

D. Pierrakos, G. Paliouras, “**Personalizing Web Directories with the aid of Web Usage Data**,” *IEEE Transactions on Knowledge and Data Engineering*, v. 22, n. 9, pp. 1331-1344, 2010.

G. Petasis, V. Karkaletsis, G. Paliouras and C.D. Spyropoulos, “**Learning context-free grammars to extract relations from text**,” In *Proceedings of the the European Conference on Artificial Intelligence (ECAI)*, IOS Press, pp. 303-307, 2008.

G. Paliouras, Y. Sakakibara (editors), *Grammatical Inference*. Special Issue of the Machine Learning Journal, vol. 66, n. 1, 2007.

G. Sigletos, G. Paliouras, C.D. Spyropoulos and M. Hatzopoulos, “**Combining Information Extraction Systems Using Voting and Stacked Generalization**,” *Journal of Machine Learning Research*, v.6, pp. 1751-1782, 2005.

D. Pierrakos, G. Paliouras, “**Exploiting Probabilistic Latent Information for the Construction of Community Web Directories**,” In *Proceedings of the International User Modelling Conference (UM)*, *Lecture Notes in Artificial Intelligence*, n. 3538, pp. 89-98, Springer Verlag, 2005. [**Best Student Paper Award**]

D. Pierrakos, G. Paliouras, C. Papatheodorou and C.D. Spyropoulos, “**Web Usage Mining as a Tool for Personalization: a survey**,” *User Modeling and User-Adapted Interaction*, v. 13, n. 4, pp. 311-372, 2003.

G. Sakkis, I. Androutsopoulos, G. Paliouras, V. Karkaletsis, C.D. Spyropoulos and P. Stamatopoulos, “**A Memory-Based Approach to Anti-Spam Filtering for Mailing Lists**,” *Information Retrieval*, v. 6, n. 1, pp. 49-73, 2003.

G. Paliouras, C. Papatheodorou, V. Karkaletsis and C.D. Spyropoulos, “**Discovering User Communities on the Internet Using Unsupervised Machine Learning Techniques**,” *Interacting with*

*Computers*, v. 14, n. 6, pp. 761-791, 2002.

G. Paliouras, V. Karkaletsis and C.D. Spyropoulos (editors), *Machine Learning and Applications*. Lecture Notes in Artificial Intelligence, n. 2049, Springer-Verlag, 2001.

G. Petasis, Frantz Vichot, Francis Wolinski, G. Paliouras, V. Karkaletsis, and C.D. Spyropoulos, “**Using Machine Learning to Maintain Rule-based Named-Entity Recognition and Classification Systems**”. *Proceedings of the Annual Meeting of the Association for Computational Linguistics (ACL)*, pp. 426-433, 2001.

G. Petasis, A. Cucchiarelli, P. Velardi, G. Paliouras, V. Karkaletsis, and C.D. Spyropoulos, “**Automatic adaptation of proper noun dictionaries through co-operation of machine learning and probabilistic methods**”. *Proceedings of the 23rd ACM SIGIR Conference on R&D in IR (SIGIR)*, pp. 128-135, 2000.

G. Paliouras, C. Papatheodorou, V. Karkaletsis and C.D. Spyropoulos, “**Clustering the Users of Large Web Sites into Communities**,” *Proceedings of the International Conference on Machine Learning (ICML)*, pp. 719-726, 2000.

G. Paliouras, V. Karkaletsis and C.D. Spyropoulos, “**Learning Rules for Large Vocabulary Word Sense Disambiguation**,” *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, v. 2, pp. 674-679, 1999.

G. Paliouras and D.S. Brée, “**The Effect of Numeric Features on the Scalability of Inductive Learning**,” *Proceedings of the European Conference on Machine Learning (ECML), Lecture Notes in Artificial Intelligence*, n. 912, pp. 218-231, Springer-Verlag, 1995.

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#### Selected Invited Talks and Tutorials (Complete list on my Web site)

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"**Formal Methods for Event Processing**", with Alexandros Artikis, Tutorial at the *International Research-centered Summer School (IRSS) in Cognitive Systems and Interactive Robotics*, Social Media, Digital Preservation, NCSR “Demokritos”, July 2013.

"**BioASQ: A challenge on large-scale biomedical semantic indexing and question answering**", IBM Thomas J. Watson Research Center, Yorktown Heights, New York, USA, November 2012.

"**Logic-Based Event Recognition**", Xerox Research Centre Europe, Grenoble, France, January 2012.

"**Logic-Based Event Recognition**", with Alexandros Artikis and Francois Portet, Tutorial at the *International Joint Conference on Artificial Intelligence (IJCAI)*, Barcelona, July 2011.

"**Logic-Based Representation, Reasoning and Machine Learning for Event Recognition**", with Alexandros Artikis, Francois Portet and Anastasios Skarlatidis, Tutorial at the *ACM International Conference on Distributed Event-Based Systems (DEBS)*, Cambridge, UK, July 2010.

"**Non-parametric Estimation of Probabilistic Topic Hierarchies**", Laboratoire d'informatique de Grenoble (LIG), Université Joseph Fourier, Grenoble, France, January 2010.

"**Discovering and tracking user communities**", with Myra Spiliopoulou and Tanja Falkowski, Tutorial at the *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD)*, Warsaw, Poland, September 2007.

"**Discovering user communities on the Web and beyond**", *Workshop on Ubiquitous Knowledge Discovery for users (UKDU) at ECML/PKDD*, Berlin, Germany, September 2006.

"**On the Need for Bootstrapping Ontology Learning with Extraction Grammar Learning**", *International Conference on Conceptual Structures (ICCS)*, Kassel, Germany, July 2005.

"**Maintaining Information Integration Ontologies**," DaimlerChrysler, Ulm, Germany, December 2003.

"**Knowledge Discovery on the Web**," University of Torino, March 2003.

"**Refinement of Temporal Constraints in an Event Recognition System using Small Datasets**," Department of Artificial Intelligence, University of Edinburgh, UK, May 1997.

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## **Distinctions and Awards**

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- Runner-up in both tasks of the ECML/PKDD 2006 Discovery Challenge.
  - Best student paper award for my PhD student D. Pierrakos at the International User Modelling Conference, Edinburgh, UK, 2005.
  - Best PhD thesis in the Computer Science Dept. of the University of Manchester, for the year 1997.
  - Best poster at the European Conference in Non-Linear Econometrics (EC2), Aarhus, Denmark, 1995.
  - Various sponsorships and awards for postgraduate studies.
  - Award for participation in the Finals of the 4<sup>th</sup> Greek Mathematics Olympiad.
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## **Other Skills**

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- Languages: English (fluent), German (very good), Greek (native speaker).
  - Advanced computing skills: Several programming languages, operating systems and databases.
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