

YANNIS DROUGAS

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EDUCATION

- University of California Riverside, Riverside, CA.
Ph.D. in Computer Science, Fall 2008.
- Technical University of Crete, Greece
Diploma in Electronics and Computer Engineering, July 2003.

RESEARCH INTERESTS Distributed & Real-time Systems, Resource Management, Peer-to-peer Systems, Wireless Sensor Networks, Information Dissemination

WORK EXPERIENCE *Software Developer Engineer* (Fall 2008 - Present)

Environmental Systems Research Institute, Inc. (ESRI)
SUPERVISOR: Erik Hoel

Graduate Student Researcher (Winter 2004 - Fall 2008)

Distributed & Real-time Systems Lab, Computer Science Department, University of California, Riverside
ADVISOR: Vana Kalogeraki

Teaching Assistant (Fall 2003 - Spring 2005)

Computer Science Department, University of California, Riverside

Undergraduate Researcher (November 2001 - July 2003)

Technical University of Crete, Chania - Greece

Researcher in Project DIET (Decentralized Information Ecosystem Technologies).

<http://www.dfki.uni-kl.de:8080/DIET/public/index.html>

Webmaster (September 2001 - September 2002)

Intelligent Systems Lab, Technical University of Crete, Greece

PUBLICATIONS

1. Yannis Drougas, Vana Kalogeraki. Accommodating Bursts in Distributed Stream Processing Systems. In *Proceedings of the 23rd International Parallel and Distributed Processing Symposium (IPDPS)*, Rome, Italy, May 2009.
2. Thomas Repantis, Yannis Drougas, Vana Kalogeraki. Adaptive Component Composition and Load Balancing for Distributed Stream Processing Applications. In *Peer-to-Peer Networking and Applications, Springer* Vol. 2, No. 1, March 2009.
3. Vana Kalogeraki, P. M. Melliar-Smith, L. E. Moser, Yannis Drougas. Resource Management Using Multiple Feedback Loops in Soft Real-Time Distributed Object Systems. In *Journal of Systems and Software, Elsevier*, Vol. 81, No. 7, 2008.

4. Yannis Drougas, Vana Kalogeraki. RASC: Dynamic Rate Allocation for Distributed Stream Processing Applications. In *Proceedings of the 21st International Parallel and Distributed Processing Symposium (IPDPS)*, Long Beach, CA, USA, March 2007.
5. Yannis Drougas, Vana Kalogeraki. Distributed, Reliable Restoration Techniques using Wireless Sensor Devices. In *Proceedings of the 21st International Parallel and Distributed Processing Symposium (IPDPS)*, Long Beach, CA, USA, March 2007.
6. Christos Tryfonopoulos, Manolis Koubarakis and Yannis Drougas. Information Filtering and Query Indexing for an Information Retrieval Model. In *ACM Transactions on Information Systems* (under revision).
7. Vana Kalogeraki, P. M. Melliar-Smith, L. E. Moser, Yannis Drougas. Resource Management Using Multiple Feedback Loops in Soft Real-Time Distributed Object Systems. In *Journal of Systems and Software, Elsevier* (to appear).
8. Yannis Drougas, Thomas Repantis, Vana Kalogeraki. Load Balancing Techniques for Distributed Stream Processing Applications in Overlay Environments. In *Proceedings of the 9th IEEE International Symposium on Object and component-oriented Real-time distributed Computing*, Gyeongju, Korea, April 2006.
9. Yannis Drougas, Vana Kalogeraki. A Fair Resource Allocation Algorithm for Peer-to-Peer Overlays. In *Proceedings of the 8th IEEE Global Internet Symposium (in conjunction with IEEE INFOCOM 2005)*, Miami, FL, USA, March 2005.
10. Thomas Repantis, Yannis Drougas, Vana Kalogeraki. Adaptive Resource Management in Peer-to-Peer Middleware. In *Proceedings of the 13th International Workshop on Parallel and Distributed Real-Time Systems (WPDRTS 2005) (in conjunction with IPDPS 2005)*, Denver, CO, USA, April 2005.
11. C. Tryfonopoulos, M. Koubarakis and Y. Drougas. Filtering Algorithms for Information Retrieval Models with Named Attributes and Proximity Operators. In *Proceedings of the 27th Annual International ACM SIGIR Conference*, Sheffield, UK, July 25-29, 2004.
12. C. Tryfonopoulos, M. Koubarakis and Y. Drougas. Filtering Algorithms for Information Retrieval Models with Named Attributes and Proximity Operators. In *Proceedings of the 3rd Hellenic Data Management Symposium (HDMS 2004)*, Athens, Greece, March 28-29, 2004.
13. M. Koubarakis, C. Tryfonopoulos, S. Idreos and Y. Drougas. Selective Information Dissemination in P2P Networks: Problems and Solutions. *ACM SIGMOD Record, Special issue on Peer-to-Peer Data Management, Karl Aberer (editor), 32(3)*, September 2003.

SCHOLARSHIPS • Dean's Fellowship, Department of Computer Science, College of Engineering, UCR
 • Dr. John Psaroudakis Scholar in recognition of my outstanding academic performance during the scholastic year 2000

PROJECTS • Dynamic Adaptation of Large-Scale Systems for Accommodation of Fluctuating Workload. Work received the *Best Paper Award* in IPDPS 2009.
 • Implementation of a Real-Time Scheduler in Java. Published in *Journal of Systems and Software*.
 • Adaptive QoS-aware Resource Allocation for Large-Scale Systems. Part of the work presented in IPDPS 2007.
 • Achieving Robust Coverage in Wireless Sensor Networks. Work presented in IPDPS 2007.

- Dynamic Selection of Replica Placement Strategy for Wide-Area Peer-to-Peer Systems. Idea and initial results published in Global Internet 2005.
- Load balancing heuristics and algorithms for efficient resource management in Peer-to-Peer Middleware. Work published in WPDRTS 2005.
- A Measurement Study - UDP vs. TCP Performance in Congested Routers - Implementation of tools and measurement under real-world situations (Fall 2004)
- Real-Time Series Classification using Hidden Markov Models (Spring 2004)
- Design and implementation of efficient Profile Indexing algorithms for Information Dissemination (Nov. 2002 - June 2003). This work was supported by project DIET of the European Union.
- Design and implementation of a distributed web proxy (Spring 2002)
- Design and implementation of a WWW news portal using JSP, ASP and an underlying Relational DBMS (Fall 2001)
- Design and implementation of a compiler for the Pascal programming language, using the flex and bison tools (Fall 2001)
- Participation in the development of DIAS, a Distributed Information Alert System for digital libraries (Fall 2001)

TECHNICAL SKILLS

- *Operating systems:* I have advanced user experience with Linux, Mac OS X, Windows and DOS.
- *Programming Languages and Technologies:* Strong knowledge of C, C++, Java, Bash Scripting, Perl and Microsoft COM. I have also used Python, HTML, JSP, ASP and SQL.
- *Development Environments and IDEs:* Eclipse, Microsoft Visual Studio, IntelliJ Idea
- I have conducted research on Distributed Real-Time Systems, especially Peer-to-Peer technologies. I have also done some research in the fields of Information Dissemination and Machine Learning.

REFERENCES Available on request.