

GEORGIOS (GEORGE) KONSTANTINIDIS

CONTACT INFORMATION

Information Sciences Institute (ISI)
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EDUCATION

University of Southern California, Los Angeles, CA

Ph.D. student, Dept of Computer Science, Aug '08 - present

- Research Group: Information Integration Group, ISI
- Area of Research: Data Integration, Databases, Semantic Web
- Advisor: Prof. José Luis Ambite
- GPA 3.6/4.0

Master of Science, Dept of Computer Science, Aug '08 - Dec '10

- Area of Study: A.I., Semantic Web, Algorithms, Logic, Databases
- GPA 3.6/4.0

University of Crete, Heraklion, Greece

Master of Science, Computer Science Dept, Sep '05 - Jan '08

- Research Group: Information Systems Laboratory, ICS-FORTH
- Area of Research: Semantic Web, Belief Revision, Ontology Evolution, Databases, Distributed Systems
- Thesis: *Belief Change in Semantic Web Environments*
- Advisor: Prof. Grigoris Antoniou
- Co-advisor: Prof. Vassilis Christophides
- GPA 8.86/10

Bachelor of Science, Computer Science Dept, Sep '00 - Sep '05

- Thesis: *An implementation solving the Ramification Problem on Temporal Databases*
- Advisor: Dr. Nikos Papadakis
- GPA 7.77/10

RESEARCH INTERESTS

Data Integration, A.I., Knowledge Representation and Reasoning, Databases, Description Logics, Semantic Web, Distributed Systems

PROFESSIONAL EXPERIENCE

University of Southern California, Los Angeles, CA

Research assistant, Aug '09 - present

Information Integration Group, ISI

Involved in the BIRN project. Designing and building a LAV mediator for biomedical data integration. Supervisor: Prof. José Luis Ambite

Research intern, May '09 - Aug '09

Information Integration Group, ISI

Involved in the BIRN project. Working on data integration algorithms and extensions. Supervisor: Prof. José Luis Ambite

Research assistant, Aug '08 - May '09

Chevron Center for Interactive Smart Oilfield Technologies (CiSoft)

Involved in the IAM project. Developing and benchmarking semantic web technologies for oilfield data. Supervisor: Prof. Viktor K. Prasanna

Foundation for Research and Technology-Hellas (FORTH), Heraklion, Greece

R&D Engineer, Feb '08 - Jul '08

Information Systems Laboratory, Institute of Computer Science, FORTH
Involved in EU projects KP-Lab and CASPAR. Building and benchmarking parts of the FORTH Semantic Web Knowledge Middleware. Supervisor: Prof. Vassilis Christophides

Research assistant, May '06 - Jan '08

Information Systems Laboratory, Institute of Computer Science, FORTH
Involved in EU projects KP-Lab and CASPAR. Designing and implementing automatic and customizable algorithms for RDF/S ontology evolution. Supervisor: Prof. Grigoris Antoniou

Technical University of Crete, Chania, Greece

R&D intern, Jun '03 - Aug '03

Dynamic Systems and Simulation Laboratory, Department of Production Engineering & Management
Involved in the EU research program EYE IN THE SKY. Extending and implementing algorithms for Motorway Traffic Surveillance and Control employing Video Sensor Technology. Supervisor: Prof. Elias Kosmatopoulos

R&D intern, Jun '02 - Aug '02

Dynamic Systems and Simulation Laboratory, Department of Production Engineering & Management
Involved in the EU research program EYE IN THE SKY. Developing and benchmarking parts of a framework for Traffic Monitoring and Prediction. Supervisor: Prof. Elias Kosmatopoulos

DaimlerChrysler (now Daimler AG.), Stuttgart, Germany

Summer intern, Jul '01 - Aug '01

Working in robotic parts for the production line of mercedes-benz engines.

SELECTED
PROJECTS &
RESEARCH

Development (in a team of 3) of a fully working compiler for Delta; a java like language, with a virtual machine. Undergraduate project, FORTH. Supervisor: Prof. Anthony Savidis

Design improvement and implementation (in a team of 5) of the CLS system (Cooperative Location Sensing); an RF-based user-positioning system. Graduate project, Networks Laboratory, FORTH. Supervisor: Prof. Maria Papadopoulou.

Design and Implementation (in a team of 3) of the evaluation models (vector, boolean, and fuzzy) of Google (now Mitos); university of Crete's search engine. Graduate project, FORTH. Supervisor: Prof. Yiannis Tzitzikas

Development of the SWKM Change Service; an ontology evolution mechanism for RDF/S ontologies; my master's thesis (part of a larger project consisted of 12 people).

Implementation of several smaller projects: a web server, the game of life in parallel processors, the wget tool in unix, a solution for the ramification problem in temporal databases (bachelor thesis), a chess game, numerous web applications etc.

TEACHING
EXPERIENCE

University of Southern California, Los Angeles, CA

2 Guest Lectures, Oct'11

CSCI561: Foundations of Artificial Intelligence

Instructor: Dr. Supannika Koolmanojwong

I gave one lecture on Knowledge Representation (chapter 12 of the AIMA book), and one lecture on application of these concepts on the Semantic Web

Guest Lecture, Jan'11

CSCI548: Information Integration on the Web

Instructors: Prof. Kristina Lerman, Prof. José Luis Ambite

I taught LAV reformulation algorithms MiniCon, MCDSAT and parts of my current work, to graduate students

University of Crete, Heraklion, Greece

Teaching Assistant, Fall'07

CS280: Theory of Computation

Instructor: Prof. Grigoris Antoniou

Teaching Assistant, Fall'06

CS252: Object Oriented Programming

Instructor: Prof. Vassilis Christophides

Teaching Assistant, Spring'06

CS467: Knowledge Representation and Processing in Intelligent Systems

Instructor: Dr. Nikos Papadakis

Teaching Assistant, Fall'05

CS255: Software Design Laboratory

Instructor: Dr. Nikos Papadakis

TECHNICAL
SKILLS

Programming and data models: Java, C, Prolog, SQL, SPARQL, XML, RDF/S, OWL (and OWL 2), MySQL, Oracle, PostgreSQL, SVN, CVS, Hudson

Web: HTML, DHTML, PHP, JSP, Java Servlets, JavaScript, JDBC, Apache Tomcat, Several Semantic Web tools and APIs (NeOn Toolkit, Ontostudio, Jena, pOWL, KAON, Protege, Sesame, RDFSuite, owlges, etc.)

Operating Systems: UNIX OS, Sun OS, Linux, Minix (educational OS), Windows

Additionally, I have done homeworks or projects with the following: WSDL, Macromedia Flash, UML, RQL, RUL, QBasic, VisualBasic, FORTRAN, SIS-TELOS, VRML, Verilog HDL, VHDL, XQuery, XPath, XSLT, DTD, ASP, Java Beans, MSSQL, BPML, BPEL, RSSDB, YACC/ LEX (Bison), Globus Toolkit services, HPCC, Matlab, Max-Plus, Sun Application Server, socket programming, MPI

PUBLICATIONS &
THESES

Documents available at konstantinidis.org

George Konstantinidis. Towards Scalable Data Integration under Constraints. *In EDBT/ICDT Ph.D. Workshop 2012, to appear.*

Giorgos Flouris, George Konstantinidis, Grigoris Antoniou, and Vassilis Christophides. Formal Foundations for RDF/S KB Evolution. *In Knowledge and Information Systems, 2012, to appear.*

George Konstantinidis and José Luis Ambite. Scalable Query Rewriting: A Graph-Based Approach. In *Proceedings of the ACM SIGMOD International Conference on Management of Data, SIGMOD'11, June 12-16, 2011, Athens, Greece*.

George Konstantinidis, Giorgos Flouris, Grigoris Antoniou, and Vassilis Christophides. A Formal Approach for RDF/S Ontology Evolution. In *Proceedings of the 18th European Conference on Artificial Intelligence, (ECAI'08)*, pages 405–409, 2008.

George Konstantinidis, Giorgos Flouris, Grigoris Antoniou, and Vassilis Christophides. On RDF/S Ontology Evolution. In *Post-Proceedings of Joint ODBIS & SWDB Workshop on Semantic Web, Ontologies, Databases (SWDB-ODBIS-07)*, pages 21–42, 2008.

George Konstantinidis, Giorgos Flouris, Grigoris Antoniou, and Vassilis Christophides. Ontology Evolution: A Framework and its Application to RDF. In *Proceedings of Joint ODBIS & SWDB Workshop (SWDB-ODBIS-07) in conjunction with VLDB'07*.

Giorgos Flouris and George Konstantinidis. Formalizing the Evolution Process. *Workshop on Ontology Evolution and Multimedia Information Extraction (BOEMIE-08), Invited Talk given by G. Flouris*, 2008.

George Konstantinidis. Belief Change in Semantic Web Environments. Master's thesis, University of Crete, 2008.

DISTINCTIONS

USC Myronis Fellowship for the academic year 2011-2012

SIGMOD travel grant recipient for 2011

SERVICE

Member of:

European Coordinating Committee for Artificial Intelligence (ECCAI)

Hellenic Artificial Intelligence Society

National Geographic Society

President of the CS Graduate Student Union, University of Crete, Fall'06 - Fall'07

Principal organizer of the 5th annual Graduate Student Symposium, at the Information Sciences Institute, USC, Oct'10. The event grew from a small number of students (4-6 in the previous years), to a whole-day event with more ISI divisions participating, 26 submissions, a double blind review process, and tens of participants. We had 10 presentations and 12 posters demonstrated

External Conference Reviewer: TAAI 2010

Program Committee Member: IJCAI 2011

Reviewer for TKDE

LANGUAGES

Greek (native), English (fluent), German (conversational), Italian (limited)

VISA

F1, Greek citizenship