

# PETRIDIS KOSMAS

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## Senior Software Engineer

Multimedia Knowledge Group  
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### ◆ PERSONAL DETAILS

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Date of Birth            6 January 1974  
Place of Birth           Katerini, Greece

### ◆ EDUCATION

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2004 – to date            MSc student in “Advanced Computing & Communication Systems” ([http://genesis.ee.auth.gr/pg\\_stud\\_ii/](http://genesis.ee.auth.gr/pg_stud_ii/)) at the Electrical & Computer Engineering department, Aristotle University of Thessaloniki.  
Master Thesis: Interaction between a University portal and a secretariat management application using Web Services.  
Estimated graduation date: February 2007.

1991 – 1996                Bachelor in Computer Science department (<http://www.csd.ucl.ac.uk/>), University of Crete. Graduation grade: 7.11/10.  
Bachelor Thesis: WebTool - A Web Browser that enables the access of World Wide Web pages by people with disabilities.

### ◆ SPOKEN LANGUAGES

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Greek                      Native  
English                     Fluent: Certificate of Proficiency in English, University of Michigan.

### ◆ WORKING EXPERIENCE

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**July 2000 – to date:** Research associate, Multimedia Knowledge Group (<http://mkq.iti.gr/>), Informatics and Telematics Institute (<http://www.iti.gr/>), Centre for Research and Technology - Hellas (CERTH-ITI), Thessaloniki, involved in management of research projects funded by the European Union (EU) and in analysis, design and implementation of software applications:

2004 – to date            Management of project «**aceMedia**: Integrating knowledge, semantics and content for user-centred intelligent media services» (<http://www.acemedia.org/>). Funded by EU, 6th FP IST - Integrated Project - 001765. Design and development of a system enabling the extraction, representation and exploitation of knowledge coming from multimedia content. Implementation of M-OntoMat-Annotizer (<http://acemedia.org/aceMedia/results/software/m-ontomat->

- [annotizer.html](#)), a tool that allows the initialization of RDF(S) domain ontologies with low-level MPEG-7 visual descriptors, supporting automatic content annotation. The tool is implemented in Java language as a plug-in to OntoMat-Annotizer, which is an ontology annotation framework (<http://annotation.semanticweb.org/ontomat>).
- 2002 - 2003 Participation in project «**P2People**: P2P “Common Interests” Search Engine and Collaboration Platform» (<http://www.p2people.org/>, <http://sourceforge.net/projects/p2people>). EU, IST-2002-38458. Design and development of a Peer-to-Peer (P2P) collaborative application to allow people form "common interest" groups and provide those groups members with new ways to communicate, collaborate and make business together. Implementation of a novel payment protocol to enable secure, anonymous and practical Peer-to-Peer e-commerce transactions. The protocol uses electronic cash for payment transactions and ensures full anonymity since it prevents the user from providing his credit card number and personal data. It was based on JXTA technology (<http://www.jxta.org/>) and was implemented in Java language using Oracle database.
- 2001 - 2002 Participation in the implementation of **TheSubtitler**, a subtitle preparation software, allowing the creation, management and synchronization of subtitles for television and video. TheSubtitler provides a text editor for subtitle editing and spell checking, subtitle time tuning, and the ability of synchronization and projection of a video with its subtitles. TheSubtitler was developed in Borland C++ Builder IDE.
- 2000 - 2001 Participation in project «**InterFace**: Multimodal Analysis - Synthesis System for Human Interaction to Virtual and Augmented Environments» (<http://www.ist-interface.org/>). EU, IST-1999-10036. Design and development of a client/server software platform, based on a distributed environment. The platform allowed Interface developers to develop their modules locally. After that, all modules were made available for testing through a web-based interface. The distributed platform was built on the CORBA framework using Microsoft Visual C++ IDE and offered great flexibility in module testing.
- January 2000 – June 2000**: Research associate, Information Processing Laboratory (<http://uranus.ee.auth.gr/ipl>), Aristotle University of Thessaloniki:
- 2000 Participation in project «**Lip-Telephone**: A Bandwidth-Scalable Video Phone for the Lip-Reading Deaf» (<http://uranus.ee.auth.gr/ipl/LipTelephone>), GSRT-EPET II. Lip-Telephone is a special videoconferencing system, based on specifications provided by MPEG-4 that enables lip-readers to communicate over a standard telephone connection.
- June 1996 – October 1996**: Undergraduate fellow, Human-Computer Interaction Laboratory (<http://www.ics.forth.gr/hci>), Institute of Computer Science, Foundation for Research and Technology – Hellas (ICS-FORTH), Heraclion Crete:
- 1996 Design and development of object-oriented applications for Windows 9x/NT, focused on people with disabilities.

## ◆ TEACHING EXPERIENCE

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Teaching in Greek Manpower Employment Organization (OAED) Oracle certified seminars for vocational training of unemployed people, Plegma Vocational Training Centre (KEK) (<http://www.plegma.gr/>):

2003 - 2004            Web-based application development in Oracle environment, using Java language.  
                         Database Administration in Oracle environment.  
                         Administration of Operating Systems & Networks using Microsoft Windows technology.

Teaching in the public Vocational Training Institutes (IEK) of Themi and Kalamaria:

2002 - 2003            SQL & PL/SQL languages in Oracle environment.  
                         Database Administration in SQL-Server environment.

2001 - 2002            Client-Server Databases in Oracle environment.  
                         C & C++ Languages.

2000 - 2001            Object Oriented Analysis.  
                         C++.

## ◆ TECHNICAL SKILLS

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- Object-oriented software analysis & design (UML).
- N-tier application development using J2EE (Java Web Services (Apache Axis), JSPs & Servlets (Apache Tomcat), Enterprise Java Beans (EJBs)).
- Application development in Java (J2SE), C++, C, Pascal.
- Design, development & manipulation of Relational Databases (Oracle, SQL Server, SQL, PL/SQL).
- Distributed application development (Service Oriented Architecture (Web Services), Client-Server (CORBA), Peer-to-Peer (JXTA)).
- Web application development (PHP-mysql, HTML, CGI).
- Structured data representation (XML, RDF(S), XSLT).
- Application development using Integrated Development Environments (Eclipse, Borland JBuilder, Oracle JDeveloper, Borland C++ Builder).
- Application development using Microsoft Visual Studio (Visual C++).
- Operating Systems: Microsoft Windows 2000/XP, DOS, Linux.

## ◆ FIELDS OF INTEREST

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- Software Engineering
- Distributed Engineering
- Database Development & Administration
- Semantic Web
- Semantic Multimedia Analysis
- Human-Computer Interaction

## ◆ JOURNAL PUBLICATIONS

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[1] **K. Petridis**, S. Bloehdorn, C. Saathoff, N. Simou, S. Dasiopoulou, V. Tzouvaras, S. Handschuh, Y. Avrithis, I. Kompatsiaris and S. Staab: "Knowledge Representation and Semantic Annotation of Multimedia Content", *IEE Proceedings on Vision Image and Signal Processing, Special issue on Knowledge-Based Digital Media Processing*, Vol. 153, No. 3, pp. 255-262, June 2006.

[2] D. Palaka, P. Daras, **K. Petridis** and M.G. Strintzis: "A Novel Peer-to-Peer Payment Protocol", *International Journal of Network Security*, Vol. 4, No. 1, pp. 107-120, Jan. 2007.

## ◆ CONFERENCE PUBLICATIONS

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[1] **K. Petridis**, D. Anastasopoulos, C. Saathoff, N. Timmermann, I. Kompatsiaris and S. Staab: "M-OntoMat-Annotizer: Image Annotation. Linking Ontologies and Multimedia Low-Level Features", *Engineered Applications of Semantic Web Session (SWEA) at the 10th International Conference on Knowledge-Based & Intelligent Information & Engineering Systems (KES 2006)*, Bournemouth, U.K., Oct. 2006.

[2] C. Saathoff, **K. Petridis**, D. Anastasopoulos, N. Timmermann, I. Kompatsiaris and S. Staab: "M-OntoMat-Annotizer: Linking Ontologies with Multimedia Low-Level Features for Automatic Image Annotation", *Demos and Posters of the 3rd European Semantic Web Conference, ESWC 2006*, Budva, Montenegro, June 2006.

[3] T. Athanasiadis, V. Tzouvaras, **K. Petridis**, F. Precioso, Y. Avrithis and I. Kompatsiaris: "Using a Multimedia Ontology Infrastructure for Semantic Annotation of Multimedia Content", *5th International Workshop on Knowledge Markup and Semantic Annotation (SemAnnot 2005) at the 4th International Semantic Web Conference, ISWC 2005*, Galway, Ireland, Nov. 2005.

[4] **K. Petridis**, F. Precioso, T. Athanasiadis, Y. Avrithis and I. Kompatsiaris: "Combined Domain Specific and Multimedia Ontologies for Image Understanding", *Workshop on Mixed-reality as a Challenge to Image Understanding and Artificial Intelligence at the 28th German Conference on Artificial Intelligence, KI 2005*, Koblenz, Germany, Sep. 2005.

[5] S. Bloehdorn, **K. Petridis**, C. Saathoff, N. Simou, V. Tzouvaras, Y. Avrithis, S. Handschuh, I. Kompatsiaris, S. Staab and M.G. Strintzis: "Semantic Annotation of Images and Videos for Multimedia Analysis", *2nd European Semantic Web Conference, ESWC 2005*, Heraklion, Greece, May 2005.

[6] **K. Petridis**, S. Bloehdorn, N. Simou, V. Tzouvaras, S. Handschuh, Y. Avrithis, I. Kompatsiaris, S. Staab, and M. G. Strintzis: "Knowledge Representation for Semantic Multimedia Content Analysis and Reasoning", *European Workshop on the Integration of Knowledge, Semantics and Digital Media Technology, EWIMT 2004*, London, U.K., Nov. 2004.

[7] D. Palaka, P. Daras, **K. Petridis**, and M.G. Strintzis: "A Novel Peer-to-Peer Payment System", *International Conference on E-Business and Telecommunication Networks, ICETE 2004*, Setubal, Portugal, Aug. 2004.

[8] P. Daras, D. Palaka, V. Giagourta, D. Bechtsis, **K. Petridis**, and M.G. Strintzis: "A novel peer-to-peer payment protocol", *International conference on computer as a Tool, IEEE EUROCON 2003*, Ljubljana, Slovenia, Sep. 2003.