

## CURRICULUM VITAE

<b><u>PERSONAL DATA:</u></b>	<b>Name:</b> Nikolaos Simou <b>Date/Place of birth:</b> 26 <sup>th</sup> of January 1981, Athens, Greece <b>Permanent Address:</b> Kountouriotou 42, Galatsi, 11146 <b>Phone Number:</b> 211-4062359 <b>Mobile:</b> 6942602794 <b>E-mail:</b> <a href="mailto:nsimou@image.ece.ntua.gr">nsimou@image.ece.ntua.gr</a>
<b><u>CITIZENSHIP:</u></b>	Greek
<b><u>FOREIGN LANGUAGES:</u></b>	English

### **EDUCATION:**

#### **National Technical University of Athens (NTUA): 2004 - 2010**

*PhD* in Practical Reasoning for Very Expressive Fuzzy Description  
Logics

#### **University of Sussex: September 2002 - June 2003**

*Master of Science* in Evolutionary and Adaptive Systems,  
funded by Engineering and Physical Sciences Research Council (EPSRC)  
Dissertation: Co-evolution of a backgammon player  
GPA :59.19

#### **University of Sussex: September 1999 - June 2002**

*Bachelor* in Computer Systems Engineering  
Dissertation: Java-based backgammon game using intelligent algorithms  
GPA: 70.6/100 (First Class)

#### **University of Sussex: September 1998 - June 1999**

*Foundation* Year for Physics & Engineers  
GPA:81.9

### **COMPUTER EXPERTISE:**

#### ***Operating Systems:***

Ms Dos, Windows 2000, Windows XP, Windows Vista, Unix.

#### ***Programming Languages:***

Java ,C, C++, SQL , Javascript, Php, HTML , Prolog.

### ***Software Packages***

3D-Studio Max, Borland CBuilder, Eclipse, Matlab, Microsoft Visual Studio.

### ***Microsoft Software:***

Msoffice: Access, Excel, FrontPage, PowerPoint, Outlook, Visio, Word

## **RESEARCH PROJECTS:**

February 2012 - today

CIP-ICT-PSP, 297158, "Europeana Photography - EUROPEAN Ancient PHOTOgraphic vintaGe repositoRies of digitAized Pictures of Historical qualitY"

March 2012 - today

CIP-ICT-PSP, 297384, "Partage Plus - Digitising and Enabling Art Nouveau for Europeana"

March 2011 – today

CIP-ICT-PSP, 270905, "Linked Heritage - Coordination of Standards and Technologies for the enrichment of Europeana"

September 2010 – August 2012

FP7-Infrastructures, 261324, "Indicate - International Network for a Digital Cultural Heritage e-Infrastructure"

September 2010 – August 2012

eContentplus, 518002, "EUscreen - Providing online access to Europe`s television heritage"

March 2006 - March 2010

FP6-26978, IST, "X-Media – Large Scale knowledge sharing and reuse across media"

January 2006 - January 2009

FP6-027026, IST, "K-Space - Knowledge Space of semantic inference for automatic Annotation and Retrieval of Multimedia Content"

January 2006 - July 2007

SP6: "DELTIO - Analysis of multimedia content with use of evolutionary ontologies and application in television bulletins of news"

January 2004 - December 2005

FP6-001765, IST, "aceMedia - Integrating knowledge, semantics and content for user centered intelligent media services"

January 2004 - December 2005

FP6-507482, IP, "Knowledge Web - Realizing the Semantic Web, Semantic-Based Knowledge Systems"

May 2003 - January 2004

FP5-1999-20502, IST, "FAETHON, Unified Intelligent Access to Heterogeneous Audiovisual Content"

## **TEACHING EXPERIENCE:**

*Image Video and Multimedia Laboratory (IVML)*

Lab assistant: "Neural Networks"

Academic Year: 2004 - 2005, 2005 – 2006, 2006 – 2007,  
2007 – 2008, 2008 – 2009

*Image Video and Multimedia Laboratory (IVML)*

Lab assistant: “Computer Graphics”

Academic Year: 2004 – 2005

*Image Video and Multimedia Laboratory (IVML)*

Lab assistant: “Introduction to programming”

Academic Year: 2004 – 2005

### **RESEARCH INTERESTS:**

- Knowledge representation under certain and uncertain data
- Description Logics- Fuzzy Description Logics
- Tableaux reasoning algorithms
- Tableaux-Optimization techniques
- DLs and Relational Databases
- Queries on knowledge bases
- Knowledge-assisted multimedia analysis
- Digital Libraries
- Linked Open Data
- Metadata management

### **PUBLICATIONS:**

#### ***Journals***

1. T. Mailis, G. Stoilos, N. Simou, G. Stamou and S. Kollias, “Tractable reasoning with vague knowledge using fuzzy EL++”, *Journal of Intelligent Information Systems*, DOI: 10.1007/s10844-012-0195-6, 2012
2. N. Simou, T. Athanasiadis, S. Kollias, G. Stamou, “Semantic Adaptation of Neural Network Classifiers in Image Segmentation” *Neural Network World*, Institute of Computer Science ASCR, Volume 19, No 5, pp 561-579, 2009
3. P. Tzouveli, N. Simou, G. Stamou, S. Kollias, “Semantic Classification of Byzantine Icons”, *IEEE Intelligent Systems*, vol. 24, no. 2, pp. 35-43, Mar./Apr. 2009
4. N. Simou, Th. Athanasiadis, G. Stoilos, S. Kollias, “Image Indexing and Retrieval using Expressive Fuzzy Description Logics”, *Signal, Image and Video Processing*, Springer, Volume 2, Number 4, pp. 321-335, December 2008
5. 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.

6. G. Stoilos, N. Simou, G. Stamou and S. Kollias, "Uncertainty and the Semantic Web", *IEEE Intelligent Systems*, 21(5), p. 84-87, 2006

### **Books**

1. N. Simou, G. Stoilos, G. Stamou, "Storing and Querying Fuzzy Knowledge in the Semantic Web using FiRE", F. Bobillo, P. C. G. da Costa et. al (eds), *Uncertainty Reasoning for the Semantic Web II*, Springer, Lecture Notes in Artificial Intelligence
2. N. Simou, G. Stoilos, C. Saathoff, J. Nemrava, V. Svatek, P. Berka, V. Tzouvaras, "Reasoning for multimedia analysis", *Multimedia Semantics: Metadata, Analysis and Interaction*, R. Troncy, B. Huet and S. Schenk (eds.), Wiley, 2011
3. G. Stoilos, G. Stamou, J.Z. Pan, N. Simou and V. Tzouvaras, "Reasoning with the Fuzzy Description Logic f-SHIN: Theory, Practice and Applications", *In Paulo CG Costa, Claudia d'Amato et al. (eds) Uncertainty Reasoning for the Semantic Web I*
4. S. Bloehdorn, K. Petridis, C. Saathoff, N. Simou, V. Tzouvaras, Y. Avrithis, S. Handschuh, Y. Kompatsiaris, S. Staab and M. G. Strintzis, "Semantic Annotation of Images and Videos for Multimedia Analysis", *Lecture Notes in Computer Science – The Semantic Web: Research and Applications*, Springer, Vol. 3532, 2005, pp. 592-607

### **Conferences**

1. E. Tsalapati, N. Simou and Regine Stein, "Evolving LIDO based aggregations into Linked Data", *CIDOC Conference*, June 2012, Helsinki, Finland
2. N. Drosopoulos, V. Tzouvaras, N. Simou, A. Christaki, A. Stabenau, K. Pardalis, F. Xenikoudakis and S. Kollias, "A Metadata Interoperability Platform", *Museums and the Web*, April 2012, San Diego, USA
3. N. Simou, J. P. Evain, V. Tzouvaras, M. Rendina, N. Drosopoulos and J. Oomen, "Linking Europe's Television Heritage", *Museums and the Web*, April 2012, San Diego, USA
4. N. Drosopoulos, V. Tzouvaras, N. Simou, A. Christaki, A. Stabenau, K. Pardalis, F. Xenikoudakis, E. Tsalapati and S. Kollias, "An aggregation system for cultural heritage content", *CIDOC Conference*, September 2011, Sibiu, Romania
5. N. Simou, T. Mailis, G. Stoilos and G. Stamou, "Optimization Techniques for Fuzzy Description Logics", *23rd International Workshop on Description Logics (DL 10)*, Waterloo, Canada, 2010
6. I. Kollia, N. Simou, G. Stamou and A. Stafylopatis, "Interweaving Knowledge Representation and Adaptive Neural Networks", *Workshop on Inductive*

*Reasoning and Machine Learning on the Semantic Web*, Crete, Greece, June 2009

7. I.Kollia, N. Simou, G. Stamou and A. Stafylopatis, "Connectionist Models For Formal Knowledge Adaptation", *19th International Conference on Artificial Neural Networks (ICANN 2009)*, September 2009, Limassol, Cyprus
8. Th. Athanasiadis, N. Simou, G. Papadopoulos, R. Benmokhtar, K. Chandramouli, V. Tzouvaras, V. Mezaris, M. Phiniketos, Y. Avrithis, Y. Kompatsiaris, B. Huet, E. Izquierdo, "Integrating Image Segmentation and Classification for Fuzzy Knowledge-based Multimedia Indexing", *15th International MultiMedia Modeling Conference (MMM2009)*, Sophia Antipolis, France, 2009
9. G. Papadopoulos, Th. Athanasiadis, N. Simou, R. Benmokhtar, K. Chrandramouli, V. Tzouvaras, V. Mezaris, M. Phiniketos, Y. Avrithis, I. Kompatsiaris, B. Huet, E. Izquierdo, "Combining Segmentation and Classification Techniques for Fuzzy Knowledge-based Semantic Image Annotation", *3rd international conference on Semantics And digital Media Technologies (SAMT)*, Koblenz, December 2008
10. N. Simou, G. Stoilos, V. Tzouvaras, G. Stamou, S. Kollias, "Storing and Querying Fuzzy Knowledge in the Semantic Web", *7th International Workshop on Uncertainty Reasoning For the Semantic Web*, Karlsruhe, Germany, October 2008
11. N. Simou, Th. Athanasiadis, S. Kollias, G. Stamou, A. Stafylopatis "Semantic Adaptation of Neural Network Classifiers in Image Segmentation" *18th International Conference on Artificial Neural Networks (ICANN 2008)*, pp. 907-916, September 2008, Prague, Czech Republic.
12. T. Mailis, G. Stoilos, N. Simou, G. Stamou, "Tractable Reasoning Based on the Fuzzy EL++ Algorithm" *7th International Workshop on Uncertainty Reasoning For the Semantic Web*, Karlsruhe, Germany, October 2008
13. N. Simou, Th. Athanasiadis, V. Tzouvaras, S. Kollias, "Multimedia Reasoning with f-SHIN", *2nd International Workshop on Semantic Media Adaptation and Personalization*, London, December 17-18, 2007, London, United Kingdom
14. J. Nemrava, P. Buitelaar, N. Simou, D. Sadlier, V. Svatek, T. Declerck, A. Cobet, T. Sikora, N. O'Connor, V. Tzouvaras, H. Zeiner, J. Petrak, "An Architecture for Mining Resources Complementary to Audio-Visual Streams", *Knowledge Acquisition from Multimedia Content Workshop, co-located with the 2nd International Conference on Semantics and Digital Media Technologies (SAMT 2007)*, London, December 17-18, 2007, London, United Kingdom

15. Ph. Mylonas, N. Simou, V. Tzouvaras and Y. Avrithis, "Towards Semantic Multimedia Indexing by Classification & Reasoning on Textual Metadata", *Knowledge Acquisition from Multimedia Content Workshop, co-located with the 2nd International Conference on Semantics and Digital Media Technologies (SAMT 2007)*, London, December 17-18, 2007, London, United Kingdom
16. Miroslav Vacura, Vojtěch Svátek, Pavel Smrž, and Nick Simou, "A Pattern-based Framework for Representation of Uncertainty in Ontologies", *6th International Workshop on Uncertainty Reasoning For the Semantic Web*, Busan, Korea, 2007
17. N.Simou, C.Saathoff, S.Dasiopoulou, E.Spyrou, N.Voisine, V.Tzouvaras, I.Kompatsiaris, Y.Avrithis, S.Staab, "An Ontology Infrastructure for Multimedia Reasoning", *International Workshop VLBV05*, Sardinia, Italy, 15-16 September 2005
18. N. Simou, V. Tzouvaras, Y. Avrithis, G. Stamou and S. Kollias, "A Visual Descriptor Ontology for Multimedia Reasoning", *In Proc. of Workshop on Image Analysis for Multimedia Interactive Services (WIAMIS '05)*, Montreux, Switzerland, April 13-15, 2005.
19. S. Bloehdorn, K. Petridis, C. Saathoff, N. Simou, V.Tzouvaras, Y. Avrithis, S. Handschuh, Y. Kompatsiaris, S. Staab and M. G. Strintzis, "Semantic Annotation of Images and Videos for Multimedia", *in Proc. of 2nd European Semantic Web Conference, (ESWC '05)*, Heraklion, Greece, May 29 - June 1, 2005.
20. S. Bloehdorn, N. Simou, V. Tzouvaras, K. Petridis, S. Handschuh, Y. Avrithis, I. Kompatsiaris, S. Staab and M. G. Strintzis, "Knowledge Representation for Semantic Multimedia Content Analysis and Reasoning", *In Proc. of European Workshop on the Integration of Knowledge, Semantics and Digital Media Technology (EWIMT)*, London, U.K., November 25-26, 2004