

# Curriculum Vitae

## Dimitrios Vogiatzis

**Date of Birth:** 31/03/1970  
**Country:** Athens, Greece.  
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### Education

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Jan 1997- Mar. 2002	PhD Thesis at the National Technical University of Athens, Dept of Electrical and Computer Engineering. Title «Rule Extraction from Artificial Neural Networks». Supervisor: Prof Andreas Stafylopatis. Scholarship from Thomaidion Foundation.
Oct 1994 – Oct 1995	M.Sc in Knowledge based systems. Department of Artificial Intelligence, University of Edinburgh. Scholarship from Scottish Office.
May 1995 – Sep 1995	M.Sc. Thesis: “Symbiotic Evolution of Neural Networks”. Supervisor: Prof. Peter Ross, University of Edinburgh
Oct 1990 – Nov 1991	Diploma thesis, University of Athens: “Natural Language as an interface to database systems”, Supervisor, Prof. Halatsis.
Nov 1987 – Dec 1991	Ptyxeion (BSc) in Computer Science, National and Capodistrian University of Athens.

## Professional Experience

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Oct 2009- Oct 2011	Elected Expert for the European Network of Internet Security (ENISA) in the field of: <i>Data mining and profiling techniques</i> .
May 2007—now	Collaborating Researcher, Institute of Informatics and Telecommunications , NCSR “Demokritos”, Athens, Greece.  Instructor at the American College of Greece at the Department of Computer Information Systems
Jan 2006 – Feb 2007	Research Associate, Department of Computer Science, University of Cyprus
Jan 2004–Dec 2005	Visiting Lecturer, Department of Computer Science, University of Cyprus.
Jun 2002–Dec 2003	Research Associate, Department of Computer Science, University of Cyprus: applications of data mining in biology
Dec 1997–Jun 2002	Research Associate, Department of Electronic and Electrical Engineering, National Technical University of Athens.
May 1997–May 1998	Columnist for “Millenium” (Greek magazine, popularizing science)
Sep 1997 – Jun 2002	Part time teaching at the “American College of Athens (Deree)”
Mar 1996-Apr 1997	Part time teaching at the training centre (IEK) Athinaion, in Athens.
Jun 1996–Jun 1997	Columnist for “Periskopeio” (Greek magazine, popularizing science).
Jul 1992–Feb. 1994	Military Service.

## Scholarships

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- 1994, scholarship for Scottish office, Edinburgh, UK
- 2001, Scholarship from Thomaidion Foundation, Athens, Greece

## Research Interests

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- Data mining techniques with emphasis in recommender systems and user modeling
  - Neural Network Architectures and Knowledge extraction from Neural Networks, Support vector machines and committee machines.
  - Genetic Algorithms
  - Intelligent methods in bioinformatics
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## Publications

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### Book chapters

1. S. Tzafestas and D. Vogiatzis, "Concerning Hopfield Networks: An overview with Applications to System Identification and Control", S. Tzafestas Editor, Computational Intelligence in Systems and Control Design and Applications, pp 311-334, Kluwer, Boston, MA, 2000

### Journal Articles

1. D. Vogiatzis and A. Stafylopatis, "Reinforcement Learning for Symbolic Expression Induction", *Mathematics and Computers in Simulation*, 51, pages 169-179, 2000
2. D. Vogiatzis and A. Stafylopatis, "Reinforcement Learning for Rule Extraction from a Labeled Dataset", *Cognitive Systems Research Journal*, Special Issue on Integration of symbolic and connectionist systems, vol.3, num.2, pages 237-253, 2002
3. P. Avgeriou, D. Vogiatzis, A. Tzanavari, S. Retalis, "Towards a pattern language for adaptive web-based educational systems, *Advanced Technology for Learning*", Vol. 1, Issue 4, ACTA Press, 2004
4. A. Tzanavari, D. Vogiatzis, M. Zembylas, S. Retalis, P. Lalos, "Affective Aspects of Web Museums", *Special Issue: Journal of Communication Studies*, 2005
5. D. Vogiatzis and N. Tsapatsoulis, "Active Learning for Microarray Data", *Special Issue of IJAR on Approximate reasoning and Machine Learning for Bioinformatics*, vol. 7, Issue 1, Jan, 2008
6. D. Vogiatzis and V. Karkaletsis, "A Cognitive Framework for Robot Guides in Art Collections", *Universal Access in the Information Society*, Long Paper in special issue on "Pervasive Technologies and Assistive Environments: Social Impact, Financial, Government And Privacy Issues", issue 10/2, 2010

### Conference Articles

1. D. Vogiatzis and S. Retalis, "A Self Regulated Internet Community", *IFIP'97, International Federation of Information Processing*, Corfu, Greece, May 1997
2. D. Vogiatzis and A. Stafylopatis, "A neural network endowed with symbolic processing ability", *IJCNN'99, International Joint Conference on Neural Networks*, Washington D.C, July 1999
3. G. Stamou, D. Vogiatzis and S. Stove, "Bridging the gap between subsymbolic and symbolic techniques: A pragmatic approach", *CSCC'99, Circuits Systems Communications and Computers*, Athens, July 1999
4. D. Vogiatzis and A. Stafylopatis, "Reinforcement Learning for Rule Generation", *5th International Conference on Artificial Neural Networks and Genetic Algorithms*, Prague, Czech Republic, April 22-25, 2001
5. A. Gavoyiannis, D. Vogiatzis and N. Hatzigargyriou, "Dynamic Security Classification using Support Vector Machines", *ISAP*, Budapest, Hungary, June 2001

6. D. Frossyniotis, S. Vrettos, D. Vogiatzis & A. Stafylopatis, C. Constantinopoulos, D.I. Fotiadis & A. Likas, G. Potamias, A. Naka, Th. Tzimas & L.K. Michalis, "An Intelligent System for the Early Diagnosis of Coronary Artery Disease", 4th International Conference "Neural Networks and Expert Systems in Medicine and Healthcare", NNESMED 2001, 20-22 June 2001, Milos Island, Greece 2001
7. A. Gavoyiannis, D. Vogiatzis and N. Hatzigargyriou, "Combined Support Vector Classifiers using Fuzzy Clustering for Dynamic Security Assessment", IEEE, Power Engineering Society, Summer Power Meeting, July 15-19, Vancouver 2001
8. D. Vogiatzis and A. Stafylopatis, "Mapping the Growing Neural Gas to Situation Calculus", in J. Gros, J. Hartamanis and J. van Leeuwen, eds., Artificial Neural Networks – ICANN 2002, Verlag 957-962, 2002
9. D. Vogiatzis, D. Frosyniotis and A.G. Papadopoulos, "The protein structure prediction module of the Prot-Grid information system", International Conference On Enterprise Information Systems, Angers France, April 2003
10. P. Avgeriou, D. Vogiatzis, A. Tzanavari, S. Retalis, "Design Patterns in Adaptive Web-Based Educational Systems" First International Workshop on Authoring of Adaptive and Adaptable Hypermedia, WBE'04 conference, Innsbruck, Austria, February 16-18, 2004
11. D. Bolser, E.O. de Brock, R. C. Jansen, A. Kozlenkov, P. Dafas, G. A. Papadopoulos, A. Robinson, M. Schroeder, A. Stavrou, M. A. Swertz, D. Vogiatzis, "The bioGRID System: A Trial of GRID Technology for the Biotech Industry", Health Grid, Clermont Ferrand, France, 2004
12. D. Vogiatzis, A. Tzanavari, S. Retalis, P. Avgeriou & A. Papasalouros, "The Learner's Mirror". In: Proceedings of the Ninth European Conference on Pattern Languages of Programs, Isree, Germany, July 2004
13. N. Tsapatsoulis and D. Vogiatzis, "InUbiHealt: Intelligent Artefacts for Ubiquitous Health Monitoring", Special Session on Image, Signal and Distributed Data Processing for Networked eHealth Applications' within the 5th International Network Conference (INC 2005), Samos, Greece, July, 2005
14. D. Vogiatzis, A. Tzanavari, M. Zembylas, S. Retalis, "Clustering the affective aspects of web users", 10th International Conference on User Modeling, Edinburgh, UK, 2005
15. D. Vogiatzis D. and N. Tsapatsoulis, "Active Learning with Wavelets for Microarray Data", Second International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics, WILF 2005 Springer-Verlag, LNCS series volume number 3849, Crema, Italy, Sept 2005
16. A. Andreou, D. Vogiatzis and G. Papadopoulos, "Intelligent Classification and Retrieval of Software Components", Compsac 2006, Chicago, USA, 2006
17. D. Vogiatzis and N. Tsapatsoulis, "Missing Value Estimation for DNA Microarrays with Multiresolution Schemes", ICANN 2006, Athens, Greece, 2006
18. D. Vogiatzis and N. Tsapatsoulis, "Clustering Microarray Data with Space Filling Curves", CIBB 2007, Portofino, Italy, 2007
19. E Kyriacou, C. Pattichis, M. Pattichis, A. Jossif, L. Paraskeva, A. Constantinides and D. Vogiatzis. "An M-Health Monitoring System for Children with Suspected Arrhythmias", EMBC, Lyon, France, 2007

20. D. Vogiatzis, D. Galanis, V. Karkaletsis, I. Androutsopoulos and C.D. Spyropoulos, "A Conversant Robotic Guide to Art Collections", Language Technology for Cultural Heritage Data, (LaTeCH), Marrakech, Morocco, 2008
21. D. Vogiatzis and E. Karkaletsis, "A Framework for Human-Robot Interaction", 1st International Conference on Pervasive Technologies Related to Assistive Environments, PETRA, Athens, Greece, 2008
22. D. Vogiatzis, C. D. Spyropoulos, S. Konstantopoulos, V. Karkaletsis, Z. Kasap, C. Matheson and O. Deroo, "An Affective Robot Guide to Museums", 4th International Workshop on Human-Computer Conversation, Bellagio, Italy, 2008.
23. D. Vogiatzis and N. Tsapatsoulis, "Modeling User Networks in Recommender Systems", 3rd International Workshop on Semantic Media Adaptation and Personalization, Prague, Czech Republic, 2008
24. V. Karkaletsis, S. Konstantopoulos, D. Bilidas, D. Vogiatzis, "INDIGO project: Personality and Dialogue Enabled Cognitive Robots", Proceedings of the PErvasive Technologies Related to Assistive Environments (PETRA), Samos, Greece, 2010
25. M. Dima, D. Vogiatzis, G. Paliouras, "Expert Based Prediction of User Preferences", accepted at 5th International Workshop on Semantic Media Adaptation and Personalization (SMAP) , Limassol Cyprus

## Technical Report

- Tzanavari, A., Avgeriou, P. & Vogiatzis, D. "Patterns for Adaptive Web-based Educational Systems". Technical Report TR-2003-4, Department of Computer Science, University of Cyprus. December 2003

## Research projects

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- XENIOS: Greek Project, General Secretariat of Research and Technology  
Summary: A robot human interface was developed, based on perception of visual, audio information as well as on the production of natural language. The system aimed to serve as a guide in exhibitions and museums (see <http://www.ics.forth.gr/xenios/description.html>).  
Involvement: 01/5/2007-30/11/2007 (7pms), at NCSR "Demokritos", Athens, Greece. I was involved in the personalisation of information presented to museum visitors based on user stereotypes and user profiles of preferences.
- INDIGO (Interaction with personality and Dialogue Enabled Robots), IST-FP6 project.  
Summary: Indigo aimed to develop human-robot communication technology for intelligent mobile robots that operate and serve tasks in populated environments. In doing so, the project involved technologies from various sectors, The project addressed human-robot communication from two sides: by enabling robots to correctly perceive and understand natural human behaviour and by making them act in ways that are familiar to humans (see <http://www.ics.forth.gr/indigo/description.html>).  
Involvement: 01/6/2008-30/06/2008 (6pms), at NCSR "Demokritos", Athens, Greece. I was involved in the building and maintenance of personal user profiles as well as in the

creation of user communities based on common preferences. The user's profiling also involved capturing, and storing user's recognised emotions from audio input.

- SERVIVE (SERvice Oriented Intelligent Value Adding nEtnetwork for Clothing-SMEs embarking in Mass-Customisation) aims to be the launching platform enabling large-scale implementation of Mass Customisation in the European Fashion Domain. (see <http://www.servive.eu/>), NMP-2007, FP-7 project.  
Involvement: 01/9/2009-now (12pms), "Demokritos", Athens, Greece. I am involved in the creation of user stereotypes, automatic derivation of user stereotypes, and creating user communities based on common preferences. Additionally, I am involved in the creation of a recommendation engine which will suggest apparels of interest to a consumer based on his preferences.
- PHYSTA (Principled Hybrid Systems: Theory and Applications, Training and Mobility of Researchers, 1998-2000). Development of a system for the automatic recognition of emotions in human faces. The methods have been based on image recognition, hybrid neural networks, fuzzy logic and rule extraction from neural networks.
- MODULATES (Multimedia Organisation for Developing the Understanding and Learning of Advanced Technology in European Schools, 1998-2000), E.C. Educational Multimedia Task Force project.
- PENED 318 (National Project Greek, 1999-2000). Development of an intelligent system for the early diagnosis of coronary artery disease. The methods have been based on computational intelligence and data mining
- GENESTREAM (IST project. Jun 2002- Dec. 2003), Automatic categorization of information in the field of biotechnology: classification of bioinformatics' articles according to Gene Ontology. In particular, I designed and implemented a workflow that the retrieved functional, structural and pathway information for a set of identified proteins.
- BIOGRID (IST project, Sep. 2003- Sep. 2004), Development of a Grid technology for knowledge extraction in bioinformatics. In particular, integration of resources and fast computation of protein interaction maps were the primary targets. I was mainly involved in the distributed computation of the protein interactions maps, this involved the deployment of grid architecture, performing the experiments and evaluating the results.
- MVU (Mediterranean Virtual University: EUMEDIS project, Jul 2005-Sep 2005). Development of the "Computational Biology" course in a distance learning environment.
- BETSY (Strep IST< Sep 2005 – March 2007), Adapting multimedia steams to preserve energy in mobile devices.

## **Teaching Experience at the American College of Greece (Deree),**

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Feb.2007-Dec.2010

- Principles of Artificial Intelligence
- Introduction to Communications and Networking Essentials
- Business Information Systems
- Introduction to Information Systems
- Object Oriented Programming and Data Structures
- The UNIX operating system

## **Teaching Experience at the University of Cyprus**

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2003-2004	Design and teaching of the “Bioinformatics” course “Introduction to Programming”
2004-2005	“Introduction to Computer Science”. “Information Learning Systems: Computational Intelligence”

## **Foreign Languages**

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English	Certificate of Proficiency in English, University of Cambridge.
French	Diplôme Etudes Supérieures, Institut Français d’ Athènes (8 years of french) and Sorbonne 1 <sup>er</sup> degré.

## **Membership in Professional Societies**

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- Association for Computing Machinery (ACM) member no 3914843
- Institute of Electrical and Electronic Engineering (IEEE) member, 40292055
- EITV (Greek computer society), αρχιμός μέλους, 10458