

CURRICULUM VITAE **OF B. BOUTSINAS**

Personal details:

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QUALIFICATIONS

Higher Education:

- PhD, Dept of Computer Engineering & Informatics, University of Patras, Greece (PhD thesis: “Knowledge Representation for Commonsense Reasoning”).
- BEng in Computer Engineering and Information Science, Dept of Computer Engineering & Informatics, University of Patras, Greece (Diploma thesis: “An authoring system based on end user programming”).
- BSc in Pedagogics, Teachers College of Lamia, Greece (Diploma thesis: “Computer support to poetry”).
- BSc in Electronics Engineering, Technical Education Institute of Piraeus, Greece (“Diploma thesis: Computer aided electronic circuits design”).

Teaching Experience:

- [2012-present] professor at Dept. of Business Administration of University of Patras. (Graduate Student Supervision: 3 PhD, 10 PhD students)
- [2008-2012] associate professor at Dept. of Business Administration of University of Patras.
- [2001-2008] assistant professor at Dept. of Business Administration of University of Patras.
- [1999-2006] teaching in the postgraduate program “Mathematics of Computers and Decision Making” of the Dept. of Mathematics and Dept. of Computer Engineering & Informatics of University of Patras. (Graduate Student Supervision: 12 MSc students)
- [2010-present] teaching in the MBA program of the Dept. of Business Administration of University of Patras.
- [1997-2000] visiting professor at Dept. of Computer Engineering & Informatics and at Dept. of Business Administration of University of Patras.

- [1997-present] 1) PhD thesis supervisor: 3 and 2) MSc thesis supervisor: about 15, at Dept. of Computer Engineering & Informatics and at Dept. of Business Administration of University of Patras.
- [1996-2013] visiting professor at Dept. of Accounting and Dept. of Business Planning & Information Systems, Technical Educational Institute of Patras
- [11/1988-06/1990, 10/1994-06/1997] Secondary teaching.

CAREER HISTORY:

- [2009-present] director of Management Information Systems & Business Intelligence Laboratory, University of Patras.
- [1992-present] Employer: Research Committee of the University of Patras, Duties: Management of research projects.
Research projects:
 1. Development of a data warehousing and OLAP analysis system for Panavox S.A. (now joined in Vodafone group)
 2. Development of a data mining system for Panavox S.A. (now joined in Vodafone group). Supported by General Secretariat of Research and Development of Greek Ministry of Development.
 3. Development of a workflow system for the automation of the organizational processes of the Hellenic Football Federation.
 4. Development of a Balanced Scorecard and an OLAP analysis system for the Greek Ministry of Development.
 5. Development of an application for supporting human resources in a government organization for the management of EU projects.
 6. Development of a data mining system. Supported by General Secretariat of Research and Development of Greek Ministry of Development.
 7. Development of an intelligent knowledge based system for automatic music composition. Supported by General Secretariat of Research and Development of Greek Ministry of Development.
 8. Training of teachers in the utilization and application of Information and Communication Technologies in the teaching method. Supported by Ministry of Economy Competitiveness and Shipping (Operational programme: Education and Lifelong Learning).
 9. Training of doctors of University Hospital of Rion in Decision Support Systems and Accounting Information Systems. Supported by Greek Manpower Employment Organization.
 10. Development of an intelligent system for supporting people with autism spectrum disorders. Supported by Greek Ministry of Health.
- [06/1993-3/2001] Employer: Self employed, Duties: Design and implementation of various information systems. Consultancy for computer technologies in Patras Municipality and in Patras Port Authorities.
- [1991-1992] Employer: Center for Contemporary Music Research, Duties: Design and implementation of information systems.
Research projects:
 1. An electronic data processing system for Greek Ancient Music Resources.
 2. An application for supporting music composition in NeXT computer system.
- [6/1990-12/1994] Employer: Technelectron Inc., Duties: computer assembly and software installation.

ADDITIONAL SKILLS & ACHIEVEMENTS

IT skills:

- Computer Operating Systems: UNIX, VMS, DOS-WINDOWS (user & administrator).
- Programming Languages: BASIC, FORTRAN, PASCAL, C, C++, LISP, PROLOG, OBJECTIVE C (NeXT), SMALLTALK, VISUAL BASIC.
- Database Management Systems: dBase, CLIPPER, OMNIS, RDB, ORACLE, INGRES.
- Computer Systems: PC, Apple-Macintosh, SUN, DEC.
- Applications: MICROSOFT WORD-EXCEL-POWERPOINT-ACCESS-PROJECT, HTML
- Business Software: Data Warehousing Systems (Oracle Express Server), OLAP Tools (Oracle Sales & Financial Analyzer, Oracle Express Analyzer & Objects, MicroStrategy DSS Agent & Executive, Microsoft Data Analyzer), Workflow Systems (Ultimus, JetForm), Simulation (Extend), ERP/CRM (Oracle, Microsoft Navision), Balanced Scorecard (Oracle Balanced Scorecard), Activity Based Costing (ARIS).

Other:

- Member of the founder team of University of Patras Artificial Intelligence Research Center (UPAIRC).
- Reviewer for a lot of international journals.
- Program Committee member:
 1. IEEE International Conference on Tools with Artificial Intelligence 1999, 2000, 2002 and 2007,
 2. 3rd, 5th and 6th Hellenic Conference on Artificial Intelligence, 2003, 2008, 2010,
 3. Athens Tourism Symposium 2010, 2011.
- Vice chair for special track “Integrated Intelligent Systems” in 15th and 16th FLAIRS 2002 and FLAIRS 2003.
- Associate Editor: International Journal on Artificial Intelligence Tools

Languages:

- Greek (mother tongue), English (intermediate).

Interests:

- percussion-drums, photo, scuba diving, kayaking

Publications

Conference Proceedings

- 1) B. Boutsinas, A. Kameas, G. Pavlides, "PIGES/A: An Electronically Data Processing system concerning the ancient Greek music sources", International Conference on Computer Music, Delphi, 1992, pp 1-12
- 2) B. Boutsinas, G. Pavlides, "Belief Revision in nonmonotonic multiple inheritance using Weighted Inheritance Networks", AI'93 Workshop on "Belief revision: Bridging the gap between theory and practice", Australia, Melbourne, 1993, pp 141-155
- 3) B. Boutsinas, "EasyTeach': a system supporting teaching", 1st Greek Conference on "Teaching mathematics & computers", 1993, pp 253-268 (**in Greek**)
- 4) B. Boutsinas, G. Pavlides, "Weighted Inheritance Networks: An Introduction", 13th IASTED International Conference Applied Informatics, Austria, Innsbruck, 1995, pp 174-176
- 5) B. Boutsinas, Y. C. Stamatiou, "A Knowledge-Based Approach to Recognizing Polyhedral Scenes", 13th IASTED International Conference Applied Informatics, Austria, Innsbruck, 1995, pp 160-163
- 6) B. Boutsinas, Y. C. Stamatiou, G. Pavlides, "Parallel Reasoning using Weighted Inheritance Networks", 1995 IJCAI Workshop on Parallel Processing for Artificial Intelligence, Montreal, Canada, 1995, pp 29-39
- 7) B. Boutsinas, "On Managing Non-monotonic Transitive Relationships", 8th IEEE International Conference on Tools with Artificial Intelligence (ICTAI), Toulouse, France, 1996, pp 374-382
- 8) G. Andreopoulos, C. Stathelakos, A. Gelaidis, B. Boutsinas, G. Pavlides, "Visual Teacher: designing tests using programming by demonstration", 6th Greek Conference in Computer Science, 1997 (**in Greek**).
- 9) B. Boutsinas, M.N. Vrahatis, "Nonmonotonic Connectionist Expert Systems", 2nd IMACS CSC'98, Athens, 1998, pp 404-412
- 10) B. Boutsinas, M.N. Vrahatis, "Data Mining using Nonmonotonic Connectionist Expert Systems", IMACS/IEEE CSCC'99, Athens, 1999, pp 77-84
- 11) T. Gnardellis, B. Boutsinas, "On Experimenting with Data Mining in Education", Proceedings of 2nd Panhellenic Conference with International Participation, "Information and Communication Technologies in Education", pp 275--283, Patras, October 2000
- 12) A.V. Adamopoulos, P. Anninos, B. Boutsinas, M.N. Vrahatis, , "Analysis of Epileptic Magnetoencephalogram Dynamics through Clustering Algorithms", Proceedings of the 14th International Conference on Digital Signal Processing (DSP2002), Santorini, Greece, July , 2002.
- 13) A.V. Adamopoulos, P. Anninos, B. Boutsinas, M.N. Vrahatis, , "Analysis of Epileptic Magnetoencephalogram Dynamics through Clustering Algorithms", Proceedings of the 14th International Conference on Digital Signal Processing (DSP2002), Santorini, Greece, July , 2002, pp. 607-610.
- 14) P. Alevizos, B. Boutsinas, D. Tasoulis, M.N. Vrahatis, "Improving the Orthogonal Range Search k-windows Algorithm", Proceedings of the 14th IEEE International Conference on Tools with Artificial Intelligence, pp 239-245, 2002
- 15) D. Plotas, D. Tasoulis, B. Boutsinas, "Are the Iliad and Odyssey each work of a single poet? " 2nd World Congress "Ancient Greece and the Modern World", July, Ancient Olympia, Greece, 2002, pp. 617-623

- 16) H. Kostakis, C. Sarigiannidis, B. Boutsinas, K. Varvakis, V. Tampakas, “Integrating Activity-Based Costing with Simulation Techniques and Data Mining”, 18TH Conference of Hellenic Operation Research Society, pp. 185-194, 2006 (**in Greek**).
- 17) H. Kostakis, L. Kounis, B. Boutsinas, “A practical study to applying location analysis in the health sector”, 21TH Conference of Hellenic Operation Research Society, 2009 (**in Greek**).
- 18) C. Tatsiopoulou, B. Boutsinas, “Ontology Mapping based on association rule mining”, 11th International Conference on Enterprise Information Systems, Milan Italy, May, 2009.
- 19) C. Tatsiopoulou, B. Boutsinas, K. Sidiropoulos, “On Aligning Interesting Parts of Ontologies”, International Conference on Knowledge Engineering and Ontology Development (KEOD 2009), October, Portugal, 2009.
- 20) M. Rogakou, K. Christou, B. Boutsinas, “On Representing Principles and Inspection Techniques of Quality Management Systems”, 3rd Conference of Union of Hellenic Scientists for Prototypation and Standardization, November, 2010 (**in Greek**).
- 21) G. Ravasopoulos, I. Papaioannou, B. Boutsinas, “On Line Analytical Processing for Decision Support of Coordinators of Environmental Education in Regional Directorates of Secondary Education”, 5th National Conference of Educators for Environmental Education, Ioannina, Greece, November, 2010 (**in Greek**).
- 22) I. Zantzou, B. Boutsinas, «Ex post Evaluation of operation plan of Trikala Hospital », 13th Hellenic Conference on Health Management, Magnesia, October, 2011 (**in Greek**).
- 23) G. Ravasopoulos, B. Boutsinas, “Applying OLAP to Decision Support for managers of secondary schools”, 6th Hellenic Conference of IT secondary teachers «IT and New School», Patras, March, 2012 (**in Greek**).

Conferences without Proceedings

- 24) N. Mastroyannis, B. Boutsinas, I. Giannikos, “Extending Outranking Relations using Data Mining Classification techniques”, 20th European Conference on Operational Research, Rhodes, Greece, 2004.
- 25) B. Boutsinas, G. Antzoulatos, P. Alevizos “A Novel Classification Algorithm Based On Clustering”, 1st International Conference from Scientific Computing to Computational Engineering, Athens, Greece, 2004.
- 26) D. Heather, J. Pyrah, K. Pyrah, B. Boutsinas, R. Jacob, “Intelligent Solutions, Evidence Based Practice And Long Term Support”, Modern Approaches in Learning Disabilities 5th Annual Conference, Exeter, UK, April, 2005.
- 27) N. Mastroyannis, G. Antzoulatos, B. Boutsinas, I. Giannikos “A New Clustering Heuristic for the Set Covering Problem”, Conference of the European Working Group on Location Analysis, Estoril, Portugal, February 2007.
- 28) N. Mastroyannis, I. Giannikos, B. Boutsinas, “A New Clustering Heuristic for solving the Set Covering Problem”, 22nd Conference on Operational Research (EURO XXII), Prague, Czech Republic, July 2007.
- 29) C. Halkiopoulos, B. Boutsinas, “Music Representation for Analysis using Data Mining”, Music Theory and Analysis - Seventh Annual Conference of Music Theory Department, May, Belgrade, 2009.

- 30) Basilis Boutsinas, Ioannis Giannikos, "Using Clustering Heuristics to Solve Demand Covering Models", 19th Meeting of the European Working Group in Location Analysis, Nantes, 12-14 October, 2011.
- 31) I. Giannikos, B. Boutsinas, A. Pantelis, "Using Clustering Heuristics to Solve a Family of Demand Covering Models", 25th European Conference on Operational Research, Vilnius, Lithuania, 2012.

Conference Proceedings published in series

- 32) B. Boutsinas, S. Papadimitriou, G. Pavlides, "Automatic analysis, verification and synthesis of rule-based real-time decision making systems with Machine Learning assistance", in Perspectives Of System Informatics, (acceptance rate: 35%), Lecture Notes in Computer Science, LNCS 1181, 1996, pp. 135-145.
- 33) D.K. Tasoulis, P. Alevizos, B. Boutsinas, M.N. Vrahatis, "Parallel unsupervised k-windows: an efficient parallel clustering algorithm", 7th International Conference Parallel Computing Technologies (PaCT-2003), Lecture Notes in Computer Science, LNCS 2763, V. Malyshev ed., Springer-Verlag, Berlin Heidelberg, Germany, 2003, pp.336-344.
- 34) B. Boutsinas, I.X. Tsekouronas, "Splitting data in decision trees using the new 'False-Positives' criterion", 3rd Hellenic Conference on Artificial Intelligence, in 35% top-scored papers published in Lecture Notes in Artificial Intelligence, LNAI 3025, Springer Verlag, 2004, pp.174-182.
- 35) B. Boutsinas, Y. Nasikas, "Document Clustering based on Association Rule Mining", International Conference of Computational Methods in Sciences and Engineering 2006 (ICCMSE 2006), Lecture Series on Computer and Computational Sciences, Brill Academic Publishers, Vol. 7, pp.58-61, 2006.

Journal Publications

- 1) B. Boutsinas, Y. C. Stamatiou, G. Pavlides, "Massively Parallel Support for Nonmonotonic Reasoning", "Parallel Processing for Artificial Intelligence", Series Machine Intelligence and Pattern Recognition 20, Elsevier Science Publishers B.V. (North-Holland), J. Geller, H. Kitano, C. Suttner (eds.), pp 41-67, ISBN 0 444 82486 3, 1997.
- 2) B. Boutsinas, M.N. Vrahatis, "Artificial Nonmonotonic Neural Networks", Artificial Intelligence 132(1), 2001, Elsevier Science Publishers B.V., Impact factor: 1769/2002, pp 1-38
- 3) M.N. Vrahatis, B. Boutsinas, P. Alevizos, G. Pavlides, "The new k-windows algorithm for improving the k-means clustering algorithm", Journal of Complexity, Academic Press, vol. 18, 2002, Impact factor: 892/2002, pp. 375-391
- 4) B. Boutsinas, T. Gnardellis, "On Distributing the clustering process", Pattern Recognition Letters, Elsevier Science Publishers B.V., vol. 23, no. 8, 2002, Impact factor: 409/2002, pp. 999-1008.
- 5) B. Boutsinas, "Accessing Data Mining Rules through Expert Systems", International Journal of Information Technology & Decision Making, 1(4), World Scientific Publishing Company, pp. 657-672, 2002.
- 6) B. Boutsinas, G.C. Meletiou, M.N. Vrahatis, "Mining Encrypted Data", in «SUPPLY CHAIN AND FINANCE», Series on Computers and Operations

- Research – Vol. 2, P. M. Pardalos, A. Migdalas, G. Baourakis (eds), pp. 273-281, World Scientific, ISBN 981-238-717-X, 2004.
- 7) B. Boutsinas, G. Prassas, G. Antzoulatos, “A methodology for scaling up classification algorithms”, *International Journal on Artificial Intelligence Tools*, 13(3), World Scientific Publishing Company, pp. 623-639, 2004.
 - 8) B. Boutsinas, “Incorporating Common Sense into a Machine Learning System”, *International Journal of Computational Cognition*, (invited paper), Vol.3, No.3, pp. 1-17, 2005.
 - 9) B. Boutsinas, “On defining OLAP-formulations”, *IMA Journal of Management Mathematics*, Oxford University Press, 16(4), pp. 339-354, 2005.
 - 10) B. Boutsinas, D. Tasoulis, M.N. Vrahatis, “Estimating the number of clusters using a windowing technique”, *Pattern Recognition and Image Analysis*, 16(2), pp. 143-154, 2006.
 - 11) H. Kostakis, B. Boutsinas, D.B. Panagiotakos, C. Pitsavos, C. Stefanadis, “The use of Boolean association rules to evaluate dependencies between the biological factors levels and genes, in human; an application to the effect of a mutation on serum lipid profile in healthy individuals”, *Far East Journal of Theoretical Statistics*, 19(1), 2006, pp. 1-11.
 - 12) D.B. Panagiotakos, H. Kostakis, B. Boutsinas, “The use of classification algorithms to assess the likelihood of having a chronic disease”, *JP Journal of Biostatistics*, 1(1), 2007, pp. 1-12.
 - 13) B. Boutsinas, S. Athanasiadis, “On Merging Classification Rules”, *International Journal of Information Technology & Decision Making*, World Scientific Publishing Company, 7(3), 2008, pp. 431-450.
 - 14) H. Kostakis, C. Sarigiannidis, B. Boutsinas, K. Varvakis, V. Tampakas, “Integrating Activity-Based Costing with Simulation Techniques and Data Mining”, *International Journal of Accounting and Information Management*, 16(1), 2008, pp. 25-35.
 - 15) B. Boutsinas, C. Siotos, A. Gerolymatos, “Distributed mining of association rules based on reducing the support threshold”, *International Journal on Artificial Intelligence Tools*, World Scientific Publishing Company, 17(6), 2008, pp. 1109-1129.
 - 16) H. Kostakis, B. Boutsinas, D.B. Panagiotakos, L. Kounis, “A Computational algorithm for the risk assessment of developing Acute Coronary Syndromes, using OLAP (On Line Analytical Process) methodology”, *International Journal of Knowledge Engineering and Soft Data Paradigms*, 1(1), 2009, pp. 85-99.
 - 17) B. Boutsinas, T. Papastergiou, “On clustering tree structured data with categorical nature”, *Pattern Recognition*, Elsevier Science, 41(12), 2008, pp. 3613-3623.
 - 18) N. Mastroyannis, B. Boutsinas, I. Giannikos, “A method for improving the accuracy of data mining classification algorithms based on outranking relations”, *Computers & Operations Research*, Pergamon-Elsevier Science, 36(10), pp. 2829-2839, 2009.
 - 19) N. Mastroyannis, I. Giannikos, B. Boutsinas, G. Antzoulatos, “CL.E.KMODES: A Modified K-Modes Clustering Algorithm”, *Journal of the Operational Research Society*, 60(8), pp. 1085-1095, 2009.

- 20) C. Tatsiopoulou, B. Boutsinas, "Automatic knowledge exchanging between tourists via mobile devices", Journal of Hospitality and Tourism Technology, 1(2), pp. 163-173, 2010.
- 21) C. Tatsiopoulou, B. Boutsinas, "On Exchanging Ontologies", International Journal of Information Engineering (IJIE). Vol. 2, No1, 2012, pp.38-47.
- 22) I. Zantzou, B. Boutsinas, «Ex post Evaluation of operation plan of Trikala Hospital», Health Review, MediForce, Athens, 22(133), pp. 11-15, 2011 (**in Greek**).
- 23) C. Halkiopoulou, B. Boutsinas, "Automatic Interactive Music Improvisation based on Data Mining", International Journal on Artificial Intelligence Tools, World Scientific Publishing Company, 21(4), 2012, pp.1250016/1-24.
- 24) I. Zantzou, B. Boutsinas, «The Perseus Plan in Hospitals: additions and extensions», Health Review, MediForce, Athens, 24(141), pp. 5-10, 2013 (**in Greek**).
- 25) B. Boutsinas, "A new biclustering algorithm based on association rule mining", International Journal on Artificial Intelligence Tools, World Scientific Publishing Company, 22(3), 2013.
- 26) B. Boutsinas, "Machine-part cell formation using biclustering", European Journal of Operational Research, 230, pp. 563-572, 2013.
- 27) B. Boutsinas, E. Gkiza, "Visualization of data mining rules using OLAP", International Journal of Information Engineering, 3(3), pp. 91-102.

Pending revision

- Konstantinos Giannopoulos, Basilis Boutsinas, "Tourism Satellite Account Support Using Olap", Journal of Travel Research, pending minor revision.
- B. Boutsinas, Ioannis Giannikos, Anteope Pantelis "On set covering based on biclustering", International Journal of Information Technology & Decision Making, pending minor revision.

Books

- 1) B. Boutsinas, "Business Intelligence: an introduction and applications", Costarakis Publishers, 2003 (**in Greek**).
- 2) B. Boutsinas, "Decision Support Systems", Greek Open University, 2003 (**in Greek**).

Holding Patent

1. B. Boutsinas, T. Gnardelis, «A SYSTEM AND METHOD FOR DATA MINING FROM RELATIONAL DATABASES USING A HYBRID NEURAL-SYMBOLIC SYSTEM», Industrial Property Organization 1004748

Technical Reports

- TR1) B. Boutsinas, G. Pavlides, "A Profitable Theory of nonmonotonic multiple inheritance based on Weighted Inheritance Networks", Tech. Report, C.T.I, TR.93.08.30, 1993
- TR2) B. Boutsinas, G. Pavlides, "An algorithm to revise beliefs of a nonmonotonic multiple inheritance reasoner based on WINS", Tech. Report, C.T.I, TR.93.09.34, 1993

- TR3) B. Boutsinas, Y. C. Stamatiou, "The Mathematics of an Inheritance System, based on Weighted Inheritance Networks, with a Profitable view of multiple extensions", Tech. Report, C.T.I, TR.93.09.35, 1993
- TR4) B. Boutsinas, Y. C. Stamatiou, "The goal-directed inheritance reasoning problem belongs to NC", Tech. Report, C.T.I, TR.94.06.38, 1994
- TR5) B. Boutsinas, Y. C. Stamatiou, "The recognition problem belongs to NC", Tech. Report, C.T.I, TR.94.11.52, 1994
- TR6) B. Boutsinas, "Efficient Management of Transitive Relationships with Exceptions", Tech. Report, C.T.I, TR.95.11.42, 1995
- TR7) G. Kaparos, I. Panaretou, M. Lambrakis, B. Boutsinas, G. Pavlides, "Ultivox: An integrated methodology for developing Workflow applications", Tech. Report, C.T.I, TR.97.11.40, 1997

Citations

There are about 350 citations to my work (Publish or Perish). It is worth noting that among the people that refer to my work are some of the best scientists in the world in Artificial Intelligence. Also, it should be noted that one of my papers is used as teaching material at a postgraduate course at the Department of Computer Science at Dresden University of Technology and another one is a reference of the "Biomimetics" research team of European Space Agency concerning "Learning & Neural Networks". Finally, some of my papers are included in various electronic libraries (e.g. Computer Vision Bibliography <http://iris.usc.edu/Vision-Notes/bibliography/contents.html>, Computer Science Bibliography <http://dblp.uni-trier.de/>, ResearchIndex <http://www.neci.nec.com/~lawrence/researchindex.html>, ACM Portal <http://portal.acm.org>, World's Largest Reuse Bibliography <http://www.lombardhill.com/biblio1.html>.)