

Curriculum Vitae of Zdravko Markov

Degrees

- 1991, Ph.D. in Computer Science from Sofia University. Thesis title: A Language for Distributed Logic Programming.
- 1981, M.S. in Computer Science from Sofia University.
- 1979, B.S. in Mathematics from Sofia University.

Academic Experience

- 2008-present: Professor, Department of Computer Science, Central Connecticut State University
- 2001-2007: Associate Professor, Department of Computer Science, Central Connecticut State University
- 1999-2000: Assistant Professor, Department of Computer Science, Central Connecticut State University
- 1998-1999: Associate Professor, Faculty of Mathematics and Informatics, University of Sofia.
- 1996-1998: Associate Professor, Institute for Information Technologies, Bulgarian Academy of Sciences.
- 1989-1996: Research Scientist, Institute for Information Technologies, Bulgarian Academy of Sciences.
- 1981-1989: Research Scientist, Institute of Engineering Cybernetics & Robotics, Bulgarian Academy of Sciences.

Teaching Experience

Undergraduate and graduate courses taught at CCSU

- Undergraduate courses:
 - CS 110 - Introduction to Internet Programming and Applications
 - CS 113 - Introduction to Computers
 - CS 161 - C programming
 - CS 151 - Computer Science I
 - CS 152 - Computer Science II
 - CS 213 - Applications of computer programming
 - CS 254 - Computer organization and assembly language programming
 - CS 354 - Digital Systems Design
 - CS 385 - Computer Architecture
 - CS 462 - Artificial Intelligence
 - HON 441, 442 (honors thesis advisor)
- Graduate courses (for the Graduate Programs in Computer Information Technology and Data Mining)
 - CS 500 - Computer Science for CIT

- CS 501 - Foundations of Computer Science
- CS 502 - Computing and Communication Technology
- CS 580 - Data Mining
- CS 580 - Web Mining
- CS 570 - Topics in AI: Machine Learning

Courses taught at other universities

- 1997/8: Machine Learning, New Bulgarian University, M.S. Program in Cognitive Science.
- 1998: Programming in Lisp and Prolog, Faculty of Mathematics & Informatics - University of Plovdiv.
- 1997/8: Prolog programming for AI, Faculty of Mathematics & Informatics - University of Sofia.
- 1993-1998: Machine Learning, Faculty of Mathematics & Informatics - University of Sofia.
- 1996-1998: Programming in Pascal, Faculty of Physics - University of Sofia.
- 1994: Logic Programming, New Bulgarian University, M.S. Program in AI.
- 1993/94: Machine Learning, New Bulgarian University, M.S. Program in AI.
- 1992/93: AI techniques in Prolog, New Bulgarian University, M.S. Program in AI.
- 1992: Artificial Intelligence, Faculty of Mathematics and Informatics - University of Sofia.
- 1990/92: AI through Prolog, Faculty of Mathematics & Informatics - Sofia University.
- 1989/91: Programming in Prolog, Faculty of Mathematics and Informatics - University of Sofia.

Supervising Capstone and Thesis Projects for the CIT and Data Mining programs at CCSU

- Taniya Neogi, Educational Data Mining of Curriculum and Student Data, Fall 2019.
- John Soper, Neural Networks and Transfer Learning for Image Classification, Fall 2019.
- Kumari Indu Bhatt, Efficacy of Deep Learning in Image Classification, Fall 2018.
- Ramin Reybod, Applying Data Mining on relational data and networks analysis with emphasis on Link Prediction, Spring 2018.
- Data Mining Social Networks with WEKA, Spring-2012
- Evaluating the WEKA System for data Mining Real World Data, Fall-2010
- Data Mining for Marketing Research Data, Spring-2009
- Car Dealer System for Car Sales, Fall-2008
- Web Document Classification, Spring-2005
- SPAM Filtering System (SFS) Using Data Mining Algorithms, Spring-2004
- Content-Based Book Recommender System Using K-Nearest Neighbor Algorithm, Spring-2002.
- Comparative Analysis of Two Data Mining Systems Weka 3.2 and Clementine 6.0, Spring-2002.
- Mining of Medical Data: Predicting the stage of Hepatitis-C Using the WEKA 3.2 Data Mining System, Fall-2002

Thesis committee member for the Data Mining program at CCSU

- David Dotson, Analysis of Predictive Models in the Attribution of Text to Medieval Copyists, Spring 2019.
- Marc Glettenberg, Predictive Classification of Player Skill Level Using Telemetric Data in the StarCraft 2 Video Game, Spring 2015.
- Marcos Souza, Use of parallel computing to fit OLS Regression models using SAS, Spring 2015.
- Senthil Murugan, Mining for profitable low-risk long straddle option strategies, Fall-2012
- Paolo Carbone, Distributor Price Optimization Using Market Segmentation Progress Report, Spring-2012
- Paolo Carbone, Distributor Price Optimization Using Market Segmentation Progress Report, Spring-2012
- Sampson Adu-Poku, Comparing Classification Algorithms in Data Mining, Fall-2011
- Judith Spomer, Latent Semantic Analysis and Classification Modeling in Applications for Social Movement Theory, Spring-2009
- Thierry Vallaud, Estimating Potential Customer Value Using Classification of Customer Data, Fall-2009
- Donald Wedding, PhD, Extending the Data Mining Software Packages SAS Enterprise Miner and SPSS Clementine to Handle Fuzzy Cluster Membership: Implementation with Examples, Fall-2009
- Kathleen M. Alber, Identifying Patterns of Potentially Preventable Emergency Room Utilization by American Children – A Data Mining Approach to the Analysis of The National Survey of Children’s Health Data, Spring-2007.
- Steven Barbee, Mining of target functions for radial nonuniformity in electrical test measurements on semiconductor devices ("wafers"), Spring-2007.
- Rafiqul Islam, Knowledge Discovery in Microarray Data, Fall-2004.
- James B. Steck, NETPIX: A Method of Feature Selection Leading to Accurate Sentiment-Based Classification Models, Spring-2005.
- Eric Taylor, Comparing Unsupervised Multivariate Normal Cluster Results Between Datasets and Consolidating Similar Clusters, Spring-2005.

Ph.D. students

- Svetla Boytcheva, 1998/9, Sofia University, Thesis topic: Inductive Logic Programming.
- Ivo Marinchev, 1998/9, Sofia University, Thesis topic: Proximity measures in Machine Learning.

Visiting Fellowships

- 1994 (1 month): University of Amsterdam, The Netherlands, area: Knowledge Based Systems (TEMPUS Project)
- 1993 (2 months): University of Sussex at Brighton, UK, area: Knowledge Based Systems (TEMPUS Project)
- 1992 (2 months): Free University of Brussels, Belgium, area: AI education (TEMPUS Project)

- 1988 (4 months): University of Tuebingen, Germany, area: Computer Graphics
- 1985 (4 months): Technical University of Darmstadt, Germany, area: Computer Graphics.

Programming Experience

Languages: MIPS Assembler, Pascal, VB 6.0, VB.Net, C/C++, Java, Prolog, Lisp, HDL Verilog.

Operating Systems: MSDOS, Windows, Unix, Linux.

Major Software Projects

- MDLclustering: Algorithms for unsupervised attribute ranking, discretization and clustering available as Java classes through a command-line interface. Available from <http://www.cs.ccsu.edu/~markov/MDLclustering/>.
- Lambda Inductive Logic Programming (LILP) - an ILP algorithm for learning from positive-only examples. Available from <http://www.cs.ccsu.edu/~markov/ml/lilp/> (see the readme.txt file).
- Lambda GENeralization (LGEN) - another algorithm for learning from positive-only examples. Available from <http://www.cs.ccsu.edu/~markov/ml/lgen/> (see the readme.txt file).
- Machine Learning Algorithms in Prolog. A collection of Prolog programs implementing popular ML algorithms. Available from http://www.cs.ccsu.edu/~markov/ccsu_courses/mlprograms/.
- Artificial Intelligence Algorithms in Prolog. A collection of Prolog programs implementing popular AI algorithms. Available from http://www.cs.ccsu.edu/~markov/ccsu_courses/aiprograms/.
- Net-Clause Language (NCL) - a language for distributed logic programming based on term unification. Available from the CMU Artificial Intelligence Repository (<http://www-2.cs.cmu.edu/afs/cs/project/ai-repository/ai/lang/prolog/impl/parallel/ncl/0.html>). Also indexed in The public-domain Prolog library (<http://www.j-paine.org/prolog/library.html>).
- Zprolog - a DOS window-based Prolog interpreter. Available as a ZIP archive at http://www.cs.ccsu.edu/~markov/ccsu_courses/mlprograms/zprolog.zip.

Grants

Principal investigator

- 2007-2009: Machine Learning Experiences in Artificial Intelligence: A Multi-Institutional Project, funded by a grant from the National Science Foundation (NSF DUE-0716338)
- 2004-2006: Machine Learning Laboratory Experiences for Introducing Undergraduates to Artificial Intelligence funded by a grant from the National Science Foundation (NSF CCLI-A&I Award Number 0409497)

- 1998-2001. Network of Excellence in Inductive Logic Programming (ILPnet2).
- 1996-1998. Franco-Bulgarian PECO Project "Extraction and Validation of Knowledge from Cases" (INRIA Rhone-Alpes and IIT-Sofia).
- 1995-1997. ESPRIT Network of Excellence in Machine Learning (MLnet).
- 1995-1997. Bulgarian National Science Fund, Project I-523/95, "Multistrategy Approach to Concept Formation in Machine Learning Systems".
- 1993-1996. Pan-European Scientific Network on Inductive Logic Programming (ILPNET).

Team member

- 1996-1998. TRACE (INCO-COPERNICUS Project No. 96-0138).
- 1992-1995. Joint European Project "University education in AI" (TEMPUS - JEP 1728)
- 1992-1995. Joint European Project "Transfer of Knowledge-Based System Skills to Bulgaria" (TEMPUS - JEP 1497)
- 1991-1998. ESPRIT Network of Excellence in Computational Logic (COMPULOG)

Major research interests

Artificial Intelligence, Machine Learning, Data Mining, Web Mining, Logic Programming, Inductive Logic Programming.

Program Committees & Conferences Membership

- Associate Editor, [International Journal on Artificial Intelligence Tools \(IJAIT\)](#)
- PC member, [30th International Joint Conference on Artificial Intelligence \(IJCAI-2021\), August, 2021, Montreal, Canada](#)
- PC member, [The 33th International FLAIRS Conference, May 17-20, 2020, North Miami Beach, Florida](#)
- PC member, [IJCAI-PRICAI 2020, Yokohama, Japan](#)
- PC member, [28th International Joint Conference on Artificial Intelligence \(IJCAI-2019\), August 10-16, 2019, Macao, China](#)
- PC member, The 32th International FLAIRS Conference, May 19-22, 2019, Sarasota, Florida
- Program Area Chair, 30th International Conference on Tools with Artificial Intelligence (ICTAI 2018), November 5-7, 2018, Volos, Greece
- Conference Chair, The 31th International FLAIRS Conference, May 21-23, 2018, Melbourne, Florida
- Program co-chair, The 30th International FLAIRS Conference, May 22-24, 2017, Marco Island, Florida
- Program co-chair, The 29th International FLAIRS Conference, May 16-18, 2016, Key Largo, Florida
- Special Track chair, The 28th International FLAIRS Conference, May 18 - 20, 2015, Hollywood, Florida
- PC member, The 27th International FLAIRS Conference, May 21-23, 2014, Pensacola Beach, Florida

- PC member, The 26th International FLAIRS Conference, May 22-24, 2013, St. Pete Beach, Florida
- PC member, The 15th International Conference on Artificial Intelligence: Methodology, Systems, Applications (AIMSA 2012), September 12-15, 2012, Varna, Bulgaria
- PC member, The 25th International FLAIRS Conference, May 23-25, 2012, Marco Island, Florida
- PC member, The 24rd International FLAIRS Conference, May 18-20, 2011, Palm Beach, Florida
- Co-chair, The Third International Conference on Software, Services & Semantic Technologies (S3T), September 1-3, 2011, Bourgas, Bulgaria
- PC member, The 23rd International FLAIRS Conference May 19-21, 2010, Daytona Beach, Florida
- PC member, 19th IEEE International Conference on Tools with Artificial Intelligence (ICTAI-07)
- Co-chair of the Special Track on Machine Learning at FLAIRS-2007
- Co-chair of the Special Track on Machine Learning at FLAIRS-2006
- Program co-chair of The 18th International FLAIRS Conference (FLAIRS-2005)
- Co-chair of the Special Track on Machine Learning at FLAIRS-2005
- Program co-chair of The 17th International FLAIRS Conference (FLAIRS-2004)
- Co-chair of the Special Track on Machine Learning, The 17th International FLAIRS Conference (FLAIRS-2004)
- Chair of the Special Track on Machine Learning, The 16th International FLAIRS Conference (FLAIRS-2003)
- Chair of the Special Track on Machine Learning, The 15th International FLAIRS Conference (FLAIRS-2002)
- Chair of the Special Track on Machine Learning, The 14th International FLAIRS Conference (FLAIRS-2001)
- PC member of AIMSA-98 Conference

Tutorials, Talks

- Markov, Z., Ingrid Russell, Web Document Classification Project, MLeXAI Workshop, Sanibel Island, FL, May 18, 2009. <http://www.cs.ccsu.edu/~markov/webdocproject-slides.pdf>
- Markov, Z., Ingrid Russell, An Introduction to the WEKA Data Mining System, Workshop #5 at The 39th ACM Technical Symposium on Computer Science Education (SIGCSE 2008), Portland, Oregon, March 12-15, 2008. Full text: <http://www.cs.ccsu.edu/~markov/weka-tutorial.pdf>
- Markov, Z., I. Russell. An Introduction to the WEKA Data Mining System (tutorial), Proceedings of the 11th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education (ITiCSE06), June 26-28, 2006, Bologna, Italy, 367. (Abstract: <http://www.cs.ccsu.edu/~markov/iticse-t.pdf>, Full text: <http://www.cs.ccsu.edu/~markov/weka-tutorial.pdf>)
- Markov, Z. An algebraic approach to machine learning and knowledge discovery, Mathematics Department Colloquium, CCSU, March 2000. (<http://www.cs.ccsu.edu/~markov/mathcolloq2000.pdf>)

Bibliography

Books, Book Chapters

- Zdravko Markov, Relational Learning, in Seel, Norbert (Ed.), Encyclopedia of the Sciences of Learning, Springer, 2012, ISBN: 978-1-4419-1428-6, pp.2806-2809.
- Zdravko Markov and Daniel Larose, Data Mining the Web: Uncovering Patterns in Web Content, Structure, and Usage, Wiley, April 2007.
- Dochev, D., Ch. Dichev, Z. Markov, G. Agre. Programming in Prolog - principles and applications, Nauka i Iskustvo, Sofia, 1989 (in Bulgarian).
- Markov, Z. Inductive Methods for Machine Learning, TEMPUS JEN 1497 & SOFTEX, 1996 (in Bulgarian).
- Agre, G., Markov, Z., Dochev, D. Introduction to Machine Learning, TEMPUS JEN 1497 & SOFTEX, 2001 (in Bulgarian).

International Conference, Journals, Editorials

1. Keith Brawner, Vasile Rus, Roman Barták, Zdravko Markov. Report on the Thirty-First International Florida Artificial Intelligence Research Society Conference (FLAIRS-31). AI Magazine 39(4): 23-24 (2018).
2. Vasile Rus, Zdravko Markov, Ingrid Russell. Report on the Thirtieth International Florida Artificial Intelligence Research Society Conference (FLAIRS-30). AI Magazine 38(3): 70-71 (2017).
3. Ingrid Russell, Zdravko Markov. An Introduction to the Weka Data Mining System. Proceedings of the 2017 ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2017), Seattle, WA, USA, March 8-11, 2017. ACM 2017, ISBN 978-1-4503-4698-6, 742. [Abstract](#), [PDF](#)
4. Zdravko Markov, Ingrid Russell, William Eberle. Report on the 29th International Florida Artificial Intelligence Research Society Conference (FLAIRS-29). AI Magazine 37(4): 81-82 (2016).
5. Zdravko Markov, Ingrid Russell (Editors). FLAIRS-29 Poster Abstracts. Proceedings of the Twenty-Ninth International Florida Artificial Intelligence Research Society Conference, FLAIRS 2016, Key Largo, Florida, May 16-18, 2016. AAAI Press 2016, ISBN 978-1-57735-756-8, 702.
6. Zdravko Markov, Ingrid Russell (Editors). Proceedings of the Twenty-Ninth International Florida Artificial Intelligence Research Society Conference, FLAIRS 2016, Key Largo, Florida, May 16-18, 2016. AAAI Press 2016, ISBN 978-1-57735-756-8.
7. Zdravko Markov, Ingrid Russell (Editors). Proceedings of the Twenty-Ninth International Florida Artificial Intelligence Research Society Conference, FLAIRS 2016, Key Largo, Florida, May 16-18, 2016. AAAI Press 2016, ISBN 978-1-57735-756-8.
8. Zdravko Markov. MDL-based Unsupervised Attribute Ranking, Proceedings of the 26th International Florida Artificial Intelligence Research Society Conference (FLAIRS-26), St. Pete Beach, Florida, USA, May 22-24, 2013, AAAI Press 2013, pp. 444-449. [PDF](#), [FLAIRS-2013 Presentation.pdf](#)

9. Ingrid Russell, Susan Coleman, Zdravko Markov. A contextualized project-based approach for improving student engagement and learning in AI courses, Proceedings of Second Computer Science Education Research Conference (CSERC-12), ACM New York, NY, USA 2012, pp. 9-15, <http://dl.acm.org/citation.cfm?id=2421278&CFID=238875681&CFTOKEN=58230559>.
10. Darina Dicheva, Zdravko Markov and Eliza Stefanova (Editors). Third International Conference on Software, Services and Semantic Technologies (S3T 2011), Advances in Intelligent and Soft Computing Volume 101, Springer, 2011, DOI: 10.1007/978-3-642-23163-6. (<http://dx.doi.org/10.1007/978-3-642-23163-6>)
11. Ingrid Russell, Zdravko Markov, Joy Dagher: A contextualized project-based approach for improving student engagement and learning in AI courses. ITiCSE 2011: 368
12. Russell, I., Z. Markov, T. Neller, M. and S. Coleman. MLeXAI: A Project-Based Application-Oriented Model. The ACM Transactions on Computing Education, TOCE 10(3), 2010.
13. Russell, I., Z. Markov. A Multi-Institutional Project-Centric Framework for Teaching AI Concepts, 39th ASEE/IEEE Frontiers in Education Conference, October 18 - 21, 2009, San Antonio, TX.
14. Rus, V., Russell, I., Markov, Z. (2009). MLxEAI: Biomedical Term Classification, The Journal of Computing Sciences in Colleges, 24(5), pages 85-92.
15. Markov, Z., L. Holder, I. Jonyer, and D. Bisant (Guest Editors). Special Issue on FLAIRS 2007: Machine Learning, Data Mining and Neural Networks, *International Journal of Artificial Intelligence Tools (IJAIT)*, Vol. 17, No. 3 (June 2008).
16. Wallace, S., Ingrid Russell, and Zdravko Markov, Integrating Games and Machine Learning in the Undergraduate Computer Science Classroom, Microsoft Academic Days on Game Development in Computer Science Education (GDCSE'08), Aboard the Celebrity Century Cruise Ship, February 28 - March 3, 2008. (<http://www.cs.ccsu.edu/~markov/papers/gdcse08.pdf>)
17. Neller T., Ingrid Russell, and Zdravko Markov, Throw Down an AI Challenge, Using AI to motivate greater participation in Computer Science, AAAI Spring Symposium, Stanford University, March 26 - 28, 2008. (<http://www.cs.ccsu.edu/~markov/papers/aaaiss08.pdf>)
18. Holder, L., Z. Markov and I. Russell. Advances in Knowledge Acquisition and Representation, *International Journal on Artificial Intelligence Tools (IJAIT)*, Vol. 15, No. 6 (2006) 867-874. (<http://www.cs.ccsu.edu/~markov/papers/ijait06.pdf>)
19. Russell, I., Z. Markov and L. Holder (Guest Editors). Special Issue on FLAIRS 2005: Knowledge Acquisition and Representation, *International Journal of Artificial Intelligence Tools (IJAIT)*, Vol. 15, No. 6 (December 2006).
20. Neller T., Clifton G.M. Presser, Ingrid Russell, Zdravko Markov. Pedagogical Possibilities for the Dice Game Pig, *Journal of Computing Sciences in Colleges*, Vol. 21, no. 6, pp. 149-161, June 2006. (<http://cs.gettysburg.edu/~tneller/papers/ccscne06.pdf>)
21. Markov, Z., I. Russell, T. Neller, N. Zlatareva. Pedagogical Possibilities for the N-Puzzle Problem, The proceedings of the 36th Annual Frontiers in Education Conference (FIE 2006), San Diego, California, October 28 - 31, 2006. (<http://www.cs.ccsu.edu/~markov/fie06.pdf>)

22. Russell, I., Z. Markov, T. Neller. Teaching AI through Machine Learning Projects, Proceedings of the 11th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education (ITiCSE06), June 26-28, 2006, Bologna, Italy, 323. (<http://www.cs.ccsu.edu/~markov/iticse-p.pdf>)
23. Neller T., Zdravko Markov, Ingrid Russel. Clue Deduction: Professor Plum Teaches Logic, Proceedings of the 19th International FLAIRS Conference (FLAIRS-2006), Melbourne Beach, Florida, May 11-13, 2006, 214-219. (<http://cs.gettysburg.edu/~tneller/papers/flairs06.pdf>)
24. Ingrid Russell, Zdravko Markov, Lawrence B. Holder, Diane Cook: The 2005 International Florida Artificial Intelligence Research Society Conference: A Report. *AI Magazine* 27(1): 109-113 (2006).
25. Markov, Z., I. Russell, T. Neller, and S. Coleman. "Enhancing Undergraduate AI Courses through Machine Learning Projects", Proceedings of the 35th ASEE/IEEE Frontiers in Education Conference, October 2005, Indianapolis, IN. (<http://cs.gettysburg.edu/~tneller/papers/fie05.pdf>)
26. Russell, I., Z. Markov, T. Neller, M. Georgiopoulos and S. Coleman. Unifying an Introduction to Artificial Intelligence Course through Machine Learning Laboratory Experiences, Proceedings of the 25th American Society for Engineering Education Annual Conference and Exposition, Portland, Oregon, June 12-15, 2005, ASEE Press. (<http://cs.gettysburg.edu/~tneller/papers/asee05.pdf>)
27. Ingrid Russell, Zdravko Markov (Editors): Proceedings of the Eighteenth International Florida Artificial Intelligence Research Society Conference, Clearwater Beach, Florida, USA, AAAI Press 2005.
28. Ingrid Russell, Zdravko Markov, Brian Carse, Anthony G. Pipe, Lawrence B. Holder (Editorial). *International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI)*, Vol. 19(2): 129-132 (2005).
29. Lawrence B. Holder, Ingrid Russell, Zdravko Markov, Anthony G. Pipe, Brian Carse. Current And Future Trends In Feature Selection And Extraction For Classification Problems, *International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI)*, Vol. 19(2): 133-142 (2005). (<http://www.cs.ccsu.edu/~markov/ijprai05.pdf>)
30. Zdravko Markov, Valerie Barr (Guest Editors). Special Issue on Selected Papers from the 17-th International FLAIRS Conference (FLAIRS-2004), *International Journal of Artificial Intelligence Tools (IJAIT)*, Vol. 14, No. 1 & 2, February & April 2005.
31. Valerie Barr, Zdravko Markov (Editors). Proceedings of the 17th International Florida Artificial Intelligence Research Symposium Conference (FLAIRS-2004), Miami Beach, Florida, AAAI Press 2004.
32. Russell, I., Z. Markov and N. Zlatareva. Introducing Machine Learning from an AI Perspective, Proceedings of the 13th International Conference on Artificial Neural Networks and Neural Information Processing (ICANN/ICONIP 2003), 469-473. (<http://www.cs.ccsu.edu/~markov/icann03.pdf>)
33. Boytcheva, S and Z. Markov. An algorithm for inducing least generalization under relative implication, in: Proceedings of FLAIRS-2002, Pensacola, Florida, May 14-16, 2002, AAAI Press, 2002, 322-326 (<http://www.cs.ccsu.edu/~markov/flairs2002.pdf>).

34. Markov, Z. An algebraic approach to inductive learning, the *International Journal of Artificial Intelligence Tools (IJAIT)*, Vol. 10, No.1-2 (2001), 257-272.
(<http://www.cs.ccsu.edu/~markov/ijait01.pdf>)
35. Markov, Z. A lattice-based approach to hierarchical clustering, in: Proceedings of FLAIRS-2001, Key West, Florida, May 21-23, 2001, AAAI Press, 2001, 389-393
(<http://www.cs.ccsu.edu/~markov/flairs2001.pdf>).
36. Markov, Z. and I. Marinchev. Coverage-based semi-distance between Horn clauses, in: S. Cerri and D. Dochev (eds.), Proceedings of AIMSAS'2000, Lecture Notes in Computer Science, Vol. 1904, Springer 2000, 331-339
(<http://www.cs.ccsu.edu/~markov/aimsa2000.pdf>).
37. Markov, Z. and I. Marinchev. Metric-based inductive learning using semantic height functions, in: Ramon López de Mántaras, Enric Plaza (eds.), Proceedings of ECML-2000, Lecture Notes in Computer Science, Vol. 1810, Springer, 2000, 254-262
(<http://www.cs.ccsu.edu/~markov/ecml2000.pdf>).
38. Markov, Z. An algebraic approach to inductive learning, in: Proceedings of FLAIRS-2000, AAAI Press, 2000, 197-201 (<http://www.cs.ccsu.edu/~markov/flairs2000.pdf>).
39. Markov, Z. Generalization under Implication by lambda-Subsumption, in: David Page (ed.), *Proceedings of the 8th International Workshop on Inductive Logic Programming (ILP-98)*, Madison, Wisconsin, USA, July 22-24, 1998, Lecture Notes in Computer Science, Vol. 1446, Springer, 1998, 215-224.
40. Agre, G., Ch. Dichev, Z. Markov. Task Editor - A Knowledge Acquisition Tool for Task Analysis, in: P. Navrat, H. Ueno (Eds.), *Knowledge-Based Software Engineering*, IOS Press, 1998, 191-194.
41. Markov, Z. and N. Pelov. A framework for Inductive Learning Based on Subsumption Lattices, in: F. Guinchiglia (ed.), *Proceedings of AIMSAS'98*, Lecture Notes in Artificial Intelligence, Vol.1480, Springer, 1998, 341-352.
42. Markov, Z. Lambda-Subsumption and Its Application to Learning from Positive-only Examples, in: S. Muggleton (ed.), *Proceedings of the 6th International Workshop on Inductive Logic Programming (ILP-96)*, Stockholm, August, 1996, Selected Papers, Lecture Notes in Artificial Intelligence, Vol.1314, Springer, 1997, 377-396.
43. Markov, Z. A Model-theoretic Approach to ILP for Learning from Positive-only Examples, in: A. Ramsay (ed.), *Artificial Intelligence: Methodology, Systems, Applications*, IOS Press, 1996, 41-50.
44. Markov, Z. Inductive Logic Programming, *Problems of Engineering Cybernetic and Robotics*, Vol.42, Bulgarian Academy of Sciences, 1995, 56-65.
45. Markov, Z. A Functional Approach to ILP, in: Luc De Raedt (ed.), *Proceedings of the 5th International Workshop in Inductive Logic Programming (ILP-95)*, Scientific report, Department of Computer Science, K.U. Leuven, September, 1995, 267-280.
46. Markov, Z. and L. Sinapova. A Framework for Network Modeling, *Computers and Artificial Intelligence*, Vol.13 (1994), No.6, Bratislava, 577-593.
47. Markov, Z. Dynamic Induction in Network of Relations, in: Ph. Jorrand and V. Sgurev (Eds.), *Proceedings of AIMSAS'94*, World Scientific, 1994, 239-246.

48. Markov, Z. Relational Learning by Heuristic Evaluation of Ground Data, in: S. Wrobel (Ed.), *Proceedings of Fourth International Workshop on Inductive Logic Programming (ILP-94)*, September 12- 14, 1994, Bad Honnef/Bon, Germany, GMD-Studien Nr.237, 337-349.
49. Markov, Z. Inductive Inference in Networks of Relations, in: *Proceedings of the Third International Workshop on Inductive Logic Programming (ILP-93)*, April 1-3, Bled, Slovenia, 256-277.
50. Sinapova, L. and Z. Markov. Grammar Representation and Parsing in a Data-Driven Logic Programming Environment, in: *Proceedings of AIMSA'92*, Artificial Intelligence V, North-Holland, 151-159.
51. Markov, Z. An approach to Concept Learning Based on Term Generalization, in: *Proceeding of the 9th International Machine Learning Conference (ML92)*, Aberdeen, Scotland, 1-3 July, Morgan Kaufman, San Mateo CA, 1992, 310-315.
52. Markov, Z. A tool for building connectionist-like networks based on term unification, in: M. Richter and H. Boley (eds.), *Proceedings of PDK'91*, Lecture Notes in Computer Science, Vol.567, Springer-Verlag, 1991, 119-203.
53. Markov, Z. and Ch. Dichev. Distributed Logic Programming, in: G. Wiggins, C. Mellish and T. Duncan (eds.), *Proceedings of the 3rd UK Annual Conference of Logic Programming, Edinburgh*, Scotland, 1991 (Workshops in Computing, Springer-Verlag, 1991, 36-55).
54. Markov, Z. An Approach to Data-Driven Learning, in: *Proceedings of the International Workshop on Fundamentals of Artificial Intelligence Research (FAIR'91)*, September 8-12, 1991, Smolenice, Czechoslovakia, Lecture Notes in Computer Science, Vol.535, Springer-Verlag, 1991, 127-140.
55. Sgurev V., D. Dochev, G. Agre, Ch. Dichev, Z. Markov. Diagnostic Expert Systems For Digital Electronics, in: *Proceedings of the IFIP TC5/WG5.3 International Conference on Artificial Intelligence in CIM*, Leningrad, April 1990, North-Holland, 1991, 220-224.
56. Markov, Z. and Ch. Dichev. The Net-Clause Language - A Tool for Data-Driven Inference, in: *Logics in AI, Proceedings of European Workshop JELIA'90*, Amsterdam, The Netherlands, September 1990, Lecture Notes in Computer Science, Vol.478, Springer-Verlag, 1991, 366-385.
57. Markov, Z., L. Sinapova and Ch. Dichev. Default reasoning in a network environment, in: *Proceedings of the 9th European Conference on Artificial Intelligence (ECAI-90)*, August 6-10, 1990, Stockholm, Sweden, 431-436.
58. Markov, Z., C. Dichev and L. Sinapova. The Net-Clause Language - a tool for describing network models, in: *Proceedings of the Eighth Canadian Conference on AI (CSCSI-90)*, 23-25 May, 1990, Ottawa, Canada, 33-39.
59. Markov, Z. A Framework for Network Modeling in Prolog, in: *Proceedings of IJCAI-89*, Detroit, U.S.A, August 20-25, Morgan Kaufmann, 1989, 78-83.
60. Dichev, Ch., G. Agre, D. Dochev, Z. Markov. Trigonometry Tutor, in: *Proceedings of the Fourth International Annual PEG Conference "Learning with Artificial Intelligence"*. Uppsala, Sweden, June 16-18, 1989.
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