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INTERESTS

Artificial intelligence, machine learning and data mining.

EDUCATION

1997: Ph.D. in Information and Computer Science, University of California, Irvine. Dissertation title: *A Unified Approach to Concept Learning*. Advisor: Dennis Kibler. Committee members: Michael Pazzani, Padhraic Smyth and J. Ross Quinlan.

1994: Master of Science in Information and Computer Science, University of California, Irvine.

1992: Master of Science in Electrical Engineering and Computer Science, specialization in Computers, Instituto Superior Técnico, Technical University of Lisbon, Portugal. Thesis title: *Competitive Recall: A Memory Model for Real-Time Reasoning*.

1988: *Licenciatura* (a 5-year degree) in Electrical Engineering and Computer Science, specialization in Systems and Computers, Instituto Superior Técnico, Technical University of Lisbon, Portugal.

SCHOLARSHIPS, HONORS AND AWARDS

2011: Best Paper Award at the Twenty-Seventh Conference on Uncertainty in Artificial Intelligence.

2010: Fellow of the Association for the Advancement of Artificial Intelligence.

2010: Co-winner of the UAI Approximate Inference Challenge.

2009: Best Paper Award at the 2009 Conference on Empirical Methods in Natural Language Processing.

2007: Kavli Frontiers Fellow (National Academy of Sciences).

2005: Best Paper Award at the Ninth European Conference on Principles and Practice of Knowledge Discovery in Databases.

2003: Sloan Research Fellowship.

2002: Selected to win ONR Young Investigator Award.¹

2001: Selected to participate in the National Academy of Engineering Symposium on Frontiers of Engineering.

2000: NSF CAREER Award.

2000: IBM Faculty Partnership Award.

1999: Best Paper Award for Fundamental Research at the Fifth International Conference on Knowledge Discovery and Data Mining.

¹Could not receive award due to delays in obtaining US permanent resident status.

1998: Best Paper Award for Fundamental Research at the Fourth International Conference on Knowledge Discovery and Data Mining.

1997: Ph.D. thesis nominated by UCI for ACM Doctoral Dissertation Award.

1996–97: NATO Scholarship.

1992–97: Fulbright Scholarship. Awarded by the United States to 20 out of approximately 3000 candidates in Portugal.

1997: Recognized as an outstanding reviewer by the program committee of the Fifteenth International Joint Conference on Artificial Intelligence (one of fewer than 10% of the reviewers).

1996: Selected for the SIGART/AAAI Doctoral Consortium.

1996: University of California Regents' Dissertation Fellowship. Awarded to approximately 30 students campuswide.

1992–96: Scholarship from JNICT, Portugal's national scientific and technological research agency.

1995: Two papers nominated for the C.V. Ramamoorthy Best Paper Award, Seventh IEEE International Conference on Tools with Artificial Intelligence.

1990: Honorable mention in the Descartes Award, given annually to a Portuguese civil servant for original and innovative work in information technology.

1989: Winner of the IEEE Region 8 (Europe, Africa and Middle East) Student Paper Contest.

PROFESSIONAL EXPERIENCE

2004–present: Associate Professor of Computer Science and Engineering at the University of Washington. Courses introduced: Machine Learning (undergraduate). Other courses taught: Foundations of Computing II (undergraduate), and see below.

2008–09: Visiting Associate Professor of Machine Learning at Carnegie Mellon University. Courses taught: Markov Logic Networks (graduate).

2005–06: Visiting Associate Professor of Computer Science at Stanford University.

1999–2004: Assistant Professor of Computer Science and Engineering at the University of Washington. Courses introduced: Data Mining (graduate), Machine Learning (graduate), Statistical Methods in Computer Science (graduate). Other courses taught: Artificial Intelligence I and II (graduate), Applications of Artificial Intelligence (graduate), Introduction to Artificial Intelligence (undergraduate).

1997–99: Assistant Professor at Instituto Superior Técnico, Lisbon, Portugal. Courses taught: Machine Learning, Natural Language Processing (undergraduate); co-taught: Intelligent Systems (graduate).

1994: Consultant for the Irvine Research Corporation.

1987–92: Teaching and research assistant at Instituto Superior Técnico, Lisbon, Portugal. Courses taught: Probability and Statistics, Applied Mathematics (instructor), Introduction to Computer Science, Artificial Intelligence.

1990–92: Author of a regular column on the future of music technology in the Portuguese magazine *Music, Instruments and Technology*.

1989–90: Developer of an AI-based system for personnel selection and job assignment at the Portuguese Army’s Center for Psychotechnical Studies.

1986–89: Intern and then researcher at INESC – Institute for Systems and Computer Engineering, Lisbon, Portugal, first in the digital signal processing and speech recognition group, and then in the computer graphics group.

1987–88: Teacher of continuing education courses in digital electronics, telecommunications, and introduction to microcomputing.

PROFESSIONAL SERVICE

2001–present: Editorial board member, *Machine Learning*.

2011: Area chair, Twenty-Second International Joint Conference on Artificial Intelligence.

2010: Co-organizer, ONR Machine Reasoning Workshops I-IV.

PC member, AAAI-2010 Workshop on Statistical Relational Artificial Intelligence.

Reviewer, GULP Award for Best Dissertation on Computational Logic.

2009: Program co-chair, Sixth International Workshop on Statistical Relational Learning.

Reviewer, U.S.-Israel Binational Science Foundation.

2005–2008: Advisory board member, *Journal of Artificial Intelligence Research*.

2008: Senior PC member, Twenty-Third Natl. Conf. on Artificial Intelligence (AAAI-2008).

Senior PC member, Twenty-Fifth Intl. Conf. on Machine Learning.

Senior PC member, Fourteenth Intl. Conf. on Knowledge Discovery and Data Mining.

Reviewer, Army Research Office.

2007: Senior PC member, Twenty-Second Natl. Conf. on Artificial Intelligence (AAAI-2007).

Program committee member, Twentieth Intl. Joint Conf. on Artificial Intelligence.

2001–2006: Founding board member, International Machine Learning Society.

2006: PC member, ICML-2006 Wkshp. on Open Problems in Statistical Relational Learning.

PC member, Third Intl. Workshop on Knowledge Discovery from Data Streams.

Reviewer, Senior Member Track, 21st Natl. Conf. on Artificial Intelligence (AAAI-2006).

1998–2005: Editorial board member, *Evaluation of Intelligent Systems*.

2005: Senior PC member, Twentieth Natl. Conf. on Artificial Intelligence (AAAI-2005).

Program committee member, Nineteenth Intl. Joint Conf. on Artificial Intelligence.

Area chair, Twenty-Second Intl. Conf. on Machine Learning.

Organizing committee member, AAAI Spring Symposium on Knowledge Collection from Volunteer Contributors.

Program committee member, KDD-2005 Wkshp. on Multi-Relational Data Mining.

PC member, ECML/PKDD-2005 Wkshp. on Knowledge Discovery in Data Streams.

Reviewer, Eleventh Intl. Conf. on Knowledge Discovery and Data Mining.

Area reviewer, National Science Foundation.

2002–2004: Associate editor, *Journal of Artificial Intelligence Research*.

2000–2004: Editorial board member, *Intelligent Data Analysis*.

2004: Program committee member, 2004 ACM SIGMOD Intl. Conf. on Management of Data.

Program committee member, ICML-2004 Wkshp. on Statistical Relational Learning.

Program committee member, KDD-2004 Wkshp. on Multi-Relational Data Mining.
 PC member, ECML/PKDD-2004 Wkshp. on Knowledge Discovery in Data Streams.
 Reviewer, Twenty-First Intl. Conf. on Machine Learning.
 Workshop proposal reviewer, Nineteenth Natl. Conf. on Artificial Intelligence (AAAI-2004).

2003: Program co-chair, Ninth Intl. Conf. on Knowledge Discovery and Data Mining.
 Program committee member, KDD-2003 Wkshp. on Multi-Relational Data Mining.
 PC member, IJCAI-2003 Wkshp. on Learning Statistical Models from Relational Data.
 Best paper selection committee member, *Machine Learning*.

2001–02: Reviewer, *Journal of Machine Learning Research*.

2000–02: Editorial board member, *Journal of Artificial Intelligence Research*.

2000–02: Reviewer, Lawrence Livermore Natl. Lab. University Collaborative Research Program.

2002: Program committee member, Nineteenth Intl. Conf. on Machine Learning.
 Program committee member, Eleventh Intl. World Wide Web Conf.
 Program committee member, KDD-2002 Wkshp. on Multi-Relational Data Mining.

1997–2001: Editorial board member, *Applied Intelligence*.

1993–2001: Reviewer, *Machine Learning*.

2001: Area chair, Eighteenth Intl. Conf. on Machine Learning.
 Panels chair, Seventh Intl. Conf. on Knowledge Discovery and Data Mining.
 Best paper awards committee, Seventh Intl. Conf. on Knowledge Discovery and Data Mining.
 Reviewer, 2001 ACM SIGMOD International Conference on Management of Data.
 Panelist, 2001 SIGART Doctoral Consortium.

1997–2000: Reviewer, *Data Mining and Knowledge Discovery*.

2000: Program committee member, Seventeenth Natl. Conf. on Artificial Intelligence (AAAI-2000).
 Program committee member, Seventeenth Intl. Conf. on Machine Learning.
 Program committee member, Eleventh European Conf. on Machine Learning.
 Program committee member, Fifth Intl. Wkshp. on Multistrategy Learning.
 Reviewer, Fourteenth Annual Conf. on Neural Information Processing Systems.
 Panel member, National Science Foundation.

1999: Program committee member, Fifth Intl. Conf. on Knowledge Discovery and Data Mining.
 Program committee member, Sixteenth Intl. Joint Conf. on Artificial Intelligence.
 Program committee member, Sixteenth Natl. Conf. on Artificial Intelligence (AAAI-99).
 Program committee member, Sixteenth Intl. Conf. on Machine Learning.
 Advisory committee member, 2nd. Intl. Wkshp. on Extraction of Knowledge from Databases.
 Reviewer, *IEEE Intelligent Systems*.
 Reviewer, *IEEE Computer*.

1997–99: Reviewer, *Journal of Artificial Intelligence Research*.

1998: Program committee member, Fourth Intl. Conf. on Knowledge Discovery and Data Mining.
 Program committee member, Fifteenth Natl. Conf. on Artificial Intelligence (AAAI-98).
 Program committee member, Fifteenth Intl. Conf. on Machine Learning.
 Reviewer, Twentieth Annual Meeting of the Cognitive Science Society.
 Reviewer, *Intelligent Data Analysis*.

1997: Program committee member, Fourteenth Natl. Conf. on Artificial Intelligence (AAAI-97).

Reviewer, Fifteenth Intl. Joint Conf. on Artificial Intelligence.
1996: Program committee member, ICML-96 Wkshp. on Learning in Context-Sensitive Domains.
1995: Reviewer, *Artificial Intelligence Review*.
1990: Co-founder of the Computer Division of the IST Student Union.

PROFESSIONAL MEMBERSHIPS

Association for Computing Machinery.
ACM Special Interest Group on Artificial Intelligence.
ACM Special Interest Group on Knowledge Discovery and Data Mining.
ACM Special Interest Group on Management of Data.
Association for the Advancement of Artificial Intelligence.
Institute of Electrical and Electronics Engineers.
IEEE Computer Society.
International Machine Learning Society.
Association for Computational Linguistics.
Cognitive Science Society.
American Association of University Professors.
Portuguese Association for Artificial Intelligence.
Portuguese Association for Pattern Recognition.
Portuguese Informatics Association.
Portuguese Engineering Society.

GRANTS AND OTHER FUNDING

2011: Yahoo! Inc. gift, \$5000.
2009: *FAUST: Flexible Acquisition and Understanding System for Text*, Defense Advanced Research Projects Agency, \$586,000.
2008: *A Unified Approach to Abductive Inference*, Multidisciplinary University Research Initiative, Army Research Office, \$6,250,000 (of which \$3,750,000 for subawards to other institutions).
2008: *Reading the Web: Utilizing Markov Logic in Open Information Extraction*, National Science Foundation, \$900,000 (with Oren Etzioni).
2008: *Algorithms for Collective Knowledge Acquisition*, Office of Naval Research, \$329,000.
2008: *Ontology Evolution with Markov Logic*, Defense Advanced Research Projects Agency, \$202,000.
2007: *PLATO: Phased Learning through Analyzing Teaching and Observation*, Defense Advanced Research Projects Agency, \$516,000.
2007: *DIESEL: Data Integration and Exploitation System that Learns*, Defense Advanced Research Projects Agency, \$499,000.
2006: Eastman Kodak Company gift, \$20,000.
2005: *Transfer Learning in Integrated Cognitive Systems*, Defense Advanced Research Projects Agency, \$786,000.
2005: *CALO: Cognitive Assistant that Learns and Organizes*, Defense Advanced Research Projects Agency, \$360,000.

2005: *Möbius: Learning by Reading with Markov Logic*, Defense Advanced Research Projects Agency, \$91,000.

2005: *Learning from Interdependent Examples*, National Science Foundation, \$299,925.

2005: *An Approach to Large-Scale Knowledge Acquisition*, Office of Naval Research, \$323,000.

2004: *Adversarial Classification*, Google, Inc., \$76,000.

2004: *Beowulf Cluster Supercomputing for Artificial Intelligence, Data Mining, and Database Research*, Defense University Research Instrumentation Program, \$135,000 (with other UW AI faculty).

2003: Sloan Research Fellowship, \$40,000.

2002: *Learning and Inference in Collective Knowledge Bases*, Office of Naval Research, \$300,000.

2000: *Ubiquitous, Large-Scale Machine Learning*, NSF CAREER Award, \$313,695.

2000: Ford Motor Co. gift, \$300,000.

2000: IBM Faculty Partnership Award, \$40,000.

1998: *Algorithms for Data Mining*, Portuguese Science Foundation, PTE 3,500,000.

STUDENTS

Ph.D. supervisor (current)

Robert Gens
Chloé Kiddon
Aniruddh Nath
Hoifung Poon
Austin Webb

Ph.D. supervisor or co-supervisor (graduated)

Corin Anderson (with Daniel Weld), software engineer, Google, Inc.
Dissertation: *Personalizing Web Sites with Machine Learning and Data Mining* (2002).

AnHai Doan (with Alon Halevy), associate professor, University of Wisconsin, Madison.
Dissertation: *Learning to Map between Structured Representations of Data* (2002).

Geoff Hulten, principal applied research manager, Microsoft Corp.
Dissertation: *Mining Massive Data Streams* (2005).

Stanley Kok, post-doctoral researcher, University of Maryland, College Park.
Dissertation: *Structure Learning in Markov Logic Networks* (2010).

Tessa Lau (with Daniel Weld), research staff member, IBM Almaden Research Center.
Dissertation: *Programming by Demonstration: A Machine Learning Approach* (2001).

Daniel Lowd, assistant professor, University of Oregon.
Dissertation: *Efficient Learning and Inference in Rich Statistical Representations* (2010).

Matt Richardson, researcher, Microsoft Research.
Dissertation: *Learning and Inference in Collective Knowledge Bases* (2004).

Parag Singla, post-doctoral researcher, University of Texas at Austin.
Dissertation: *Markov Logic: Theory, Algorithms and Applications* (2009).

Post-doctoral supervisor

Jesse Davis (2007-10)

Vibhav Gogate (2009-present)

INVITED TALKS

- 2011: Twenty-Seventh Conference on Uncertainty in Artificial Intelligence (Barcelona, Spain; invited tutorial, with Kristian Kersting).
Tenth International Conference on Machine Learning and Applications (Honolulu, HI; invited tutorial).
ICML-2011 Workshop on Learning Architectures, Representations, and Optimization for Speech and Visual Information Processing (Bellevue, WA).
Summer School on Probabilistic Models of Cognition (Los Angeles, CA).
University of Texas, Austin.
University of Memphis (Memphis, TN).
Swiss Federal Institute of Technology (ETH; Zurich, Switzerland).
Google Faculty Summit (Zurich, Switzerland).
- 2010: Georgia Institute of Technology (Atlanta, GA).
IBM Thomas J. Watson Research Center (Yorktown Heights, NY).
Twenty-Fifth Snowbird Learning Workshop (Snowbird, UT).
Sixth International Workshop on Neural-Symbolic Learning and Reasoning (Atlanta, GA).
Los Alamos National Laboratory (Los Alamos, NM).
Seattle Robotics Society (Renton, WA).
- 2009: University of Edinburgh (Scotland).
Johns Hopkins University (Baltimore, MD).
Xerox Palo Alto Research Center (Palo Alto, CA).
MITACS 2009 Annual Conference (Fredericton, Canada).
Re: Learning Conference (Washington, DC).
Workshop on Information in Networks (New York University).
NIPS-2009 Workshop on Approximate Learning of Large-Scale Graphical Models: Theory and Applications (Whistler, Canada).
ONR Machine Reasoning Workshop (Los Angeles, CA).
CALO 2009 Annual Meeting (SRI International, Menlo Park, CA).
- 2008: Carnegie Mellon University (Pittsburgh, PA).
Cornell University (Ithaca, NY).
University of Granada (Spain).
Defense Advanced Research Projects Agency (Arlington, VA).
Twenty-Fourth International Conference on Logic Programming (Udine, Italy).
Seventeenth ACM Conf. on Information and Knowledge Management (Napa Valley, CA).
Twelfth International Workshop on Structural and Syntactic Pattern Recognition and Seventh International Workshop on Statistical Techniques in Pattern Recognition (joint invited talk; Orlando, FL).
ICML-2008 Workshop on Prior Knowledge for Text and Language (Helsinki, Finland).
NIPS-2008 Workshop on Speech and Language: Learning-based Methods and Systems (Whistler, Canada).
NIPS-2008 Workshop on Beyond Search: Computational Intelligence for the Web (Whistler, Canada).

- ONR Workshop on Research Directions in Information Integration (Monterey, CA).
- 2007: University of Illinois, Urbana-Champaign.
 Massachusetts Institute of Technology (Cambridge, MA).
 Tufts University (Medford, MA).
 University of Alberta (Edmonton, Canada).
 Nineteenth Annual NAS Kavli Frontiers of Science Symposium (Irvine, CA).
 Pacific Northwest National Laboratory (Richland, WA).
 Dagstuhl Seminar on Probabilistic, Logical and Relational Learning – A Further Synthesis
 (Schloss Dagstuhl, Germany).
 DIMACS Workshop on Recent Advances in Mathematics and Information Sciences for
 Analysis and Understanding of Massive and Diverse Sources of Data (Piscataway, NJ).
 ARO Workshop on Abductive Reasoning (Adelphi, MD).
 KDD-2007 Workshop on Knowledge Discovery from Sensor Data (San Jose, CA).
 Third Workshop on Combining Probability and Logic (Canterbury, UK).
 Nineteenth Belgian-Dutch Conference on Artificial Intelligence (Utrecht, Netherlands).
- 2006: Twenty-First National Conference on Artificial Intelligence (AAAI-2006) (Boston, MA).
 Ninth Pacific Rim International Conference on Artificial Intelligence (Guilin, China).
 IBERAMIA/SBIA/SBRN International Joint Conference 2006 (Ribeirão Preto, Brazil).
 Fifteenth International Conference on Knowledge Engineering and Knowledge Management
 (Podebrady, Czech Republic).
 Fifth Mexican International Conference on Artificial Intelligence (Apizaco, Mexico).
 Thirty-Eighth Symposium on the Interface of Statistics, Computing Science, and Applications
 (Pasadena, CA).
 Workshop on Search and Diffusion on Networks (Ithaca, NY).
 Brigham Young University (Provo, UT).
 Hong Kong University of Science and Technology.
 Federal University of Rio de Janeiro (Brazil).
 University of California, Irvine.
 Hewlett-Packard Laboratories (Palo Alto, CA).
 IBM Almaden Research Center (San Jose, CA).
 Yahoo! Research (Santa Clara, CA).
- 2005: Stanford University (Stanford, CA).
 University of Wisconsin, Madison.
 Google, Inc. (Mountain View, CA).
 Ricoh California Research Center (Menlo Park, CA).
 AAAI-2005 Workshop on Human-Comprehensible Machine Learning (Pittsburgh, PA).
 Dagstuhl Seminar on Probabilistic, Logical and Relational Learning – Towards a Synthesis
 (Schloss Dagstuhl, Germany).
- 2004: Fifteenth International Conference on Algorithmic Learning Theory and Seventh International
 Conference on Discovery Science (joint invited talk; Padova, Italy).
 Fifteenth European Conference on Machine Learning and Eighth European Conference on
 Principles and Practice of Knowledge Discovery in Databases (joint inv. talk; Pisa, Italy).
 ECML/PKDD-2003 Workshop on Knowledge Discovery in Data Streams (Pisa, Italy).
 Fourteenth International Conference on Inductive Logic Programming (Porto, Portugal).
 Ninth Conference of the International Federation of Classification Societies (Chicago, IL).
 NIPS-2004 Wkshp. on Calibration and Probabilistic Prediction (Whistler, Canada).

- New York University.
 Cornell University (Ithaca, NY).
 IBM Thomas J. Watson Research Center (Yorktown Heights and Hawthorne, NY).
 Workshop on Web Structure and Algorithms (Carnegie Mellon University, Pittsburgh, PA).
 Amazon.com (Seattle, WA).
 USC Information Sciences Institute (Marina del Rey, CA).
- 2003: University of Illinois, Urbana-Champaign.
 International Workshop on Data Mining and Adaptive Modelling Methods for Economics
 and Management (Porto, Portugal).
 Eleventh Portuguese Conference on Artificial Intelligence (Beja, Portugal).
- 2002: Natl. Academies Wkshp. on Statistical Analysis of Massive Data Streams (Wash., DC).
 Carnegie Mellon University (Pittsburgh, PA).
 University of Texas, Austin.
 University of Michigan, Ann Arbor.
 Boeing Phantom Works (Bellevue, WA).
 Thirty-Fourth Symposium on the Interface of Comp. Sci. and Statistics (Montreal, Canada).
 University of California, Irvine.
- 2001: NIPS-2001 Workshop on Foundations of Occam's Razor and Parsimony in Learning
 (Whistler, Canada).
 Oregon State University (Corvallis, OR).
 DIMACS Summer School Tutorial on New Frontiers in Data Mining (Piscataway, NJ).
 Microsoft Research (Redmond, WA).
- 2000: IBM Thomas J. Watson Research Center (Yorktown Heights and Hawthorne, NY).
 Eleventh European Conference on Machine Learning (Barcelona, Spain).
 ICML-2000 Workshop on Cost-Sensitive Learning (Stanford, CA).
 ICML-2000 Workshop on What Works Well Where (Stanford, CA).
 Fifth International Workshop on Multistrategy Learning (Guimarães, Portugal).
 Hewlett-Packard Laboratories (Palo Alto, CA).
 University of Porto (Portugal).
- 1999: IJCAI-99 Workshop on Support Vector Machines (Stockholm, Sweden).
 Thirty-First Symposium on the Interface of Comp. Sci. and Statistics (Schaumburg, IL).
- 1998: NIPS-98 Workshop on Turnkey Algorithms for Improving Generalizers (Breckenridge, CO).
 Intl. Summer School on Knowledge Discovery and Data Mining (Caminha, Portugal).
 Fourth International Workshop on Multistrategy Learning (Desenzano del Garda, Italy).
 Microsoft Research (Redmond, WA).
 University of California, Irvine.
- 1997: Intl. Wkshp. on Stochastic Model Building & Var. Selection (Duke Univ., Durham, NC).
 George Mason University (Fairfax, VA).
 AT&T Laboratories (Murray Hill, NJ).
- 1996: University of California, San Diego.
 Daimler-Benz Research Center (Ulm, Germany).
- 1995: University of Porto (Portugal).
 Naval Research Laboratory (Washington, DC).

SOFTWARE RELEASED

Alchemy: Algorithms for statistical relational AI
<http://alchemy.cs.washington.edu>

VFML: A toolkit for mining massive data sources
<http://www.cs.washington.edu/dm/vfml/>

NBE: A Bayesian learner with very fast inference
<http://www.cs.washington.edu/ai/nbe>

BVD: A bias-variance decomposition for zero-one loss
<http://www.cs.washington.edu/homes/pedrod/bvd.c>

RISE: A unified rule- and instance-based learner
<http://www.cs.washington.edu/homes/pedrod/rise.c>

BOOKS

1. P. Domingos and D. Lowd, *Markov Logic: An Interface Layer for Artificial Intelligence*, Morgan & Claypool, 2009.
2. P. Domingos, C. Faloutsos, T. Senator, H. Kargupta and L. Getoor (editors), *Proceedings of the Ninth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, ACM Press, 2003.

BOOK CHAPTERS

1. P. Domingos, “What’s Missing in AI: The Interface Layer,” in *Artificial Intelligence: The First Hundred Years*, edited by P. Cohen, AAAI Press. To appear.
2. G. Hulten and P. Domingos, “Mining Decision Trees from Streams,” in *Data Stream Management: Processing High-Speed Data Streams*, edited by M. Garofalakis, J. Gehrke and R. Rastogi, Springer. To appear.
3. P. Domingos, D. Lowd, S. Kok, H. Poon, M. Richardson and P. Singla, “Markov Logic: A Language and Algorithms for Link Mining,” in *Link Mining: Models, Algorithms and Applications*, edited by P. Yu, C. Faloutsos and J. Han, Springer, 2010.
4. P. Domingos and G. Hulten, “A General Framework for Mining Massive Data Streams,” in *Knowledge Discovery from Sensor Data*, edited by A. Ganguly, J. Gama, O. Omitaomu, M. Gaber and R. Vatsavai, CRC Press, 2009.
5. P. Domingos, D. Lowd, S. Kok, H. Poon, M. Richardson and P. Singla, “Just Add Weights: Markov Logic for the Semantic Web,” in *Uncertainty Reasoning for the Semantic Web I*, edited by P. Costa, C. d’Amato, N. Fanizzi, K. B. Laskey, K. J. Laskey, T. Lukasiewicz, M. Nickles and M. Pool, Springer, 2008.
6. P. Domingos, S. Kok, D. Lowd, H. Poon, M. Richardson and P. Singla, “Markov Logic,” in *Probabilistic Inductive Logic Programming* (pp. 92-117), edited by L. De Raedt, P. Frasconi, K. Kersting and S. Muggleton, Springer, 2008.
7. P. Domingos and M. Richardson: “Markov Logic: A Unifying Framework for Statistical Relational Learning,” in *Introduction to Statistical Relational Learning* (pp. 339-371), edited by L. Getoor and B. Taskar, MIT Press, 2007.
8. M. Richardson and P. Domingos, “Combining Link and Content Information in Web Search,” in *Web Dynamics* (pp. 179-193), edited by M. Levene and A. Poulouvasilis, Springer, 2004.

9. A. Doan, J. Madhavan, P. Domingos and A. Halevy, “Ontology Matching: A Machine Learning Approach,” in *Handbook on Ontologies in Information Systems* (pp. 385-403), edited by S. Staab and R. Studer, Springer, 2004.
10. P. Domingos, “Machine Learning,” in *Handbook of Data Mining and Knowledge Discovery* (pp. 660-670), edited by W. Klösgen and J. Żytkow, Oxford University Press, 2002.
11. P. Domingos, “Context-Sensitive Feature Selection for Lazy Learners,” in *Encyclopedia of Microcomputers* (pp. 51-72), edited by A. Kent and J. Williams, Marcel Dekker, 2001.
12. T. Lau, S. Wolfman, P. Domingos and D. Weld, “Learning Repetitive Text-Editing Procedures with SMARTedit,” in *Your Wish Is My Command: Giving Users the Power to Instruct their Software* (pp. 209-225), edited by H. Lieberman, Morgan Kaufmann, 2001.
13. P. Domingos, “Web Mining,” in *The Future of the Internet* (in Portuguese) (pp. 285-288), edited by J. Alves, P. Campos and P. Brito, Centro Atlântico, 1999.
14. P. Domingos, “Context-Sensitive Feature Selection for Lazy Learners,” in *Lazy Learning* (pp. 227-253), edited by D. Aha, Kluwer, 1997.
15. P. Domingos, R. Casteleiro and P. Diniz, “GEAR – A 3D Computer Animation System for CAD and Simulation,” in *IEEE Student Papers* (pp. 167-175), IEEE, 1989.

JOURNAL ARTICLES

1. H. Blockeel, K. Borgwardt, L. De Raedt, P. Domingos, K. Kersting and X. Yan (editors), *Machine Learning: Special Issue on Inductive Logic Programming, Mining and Learning in Graphs and Statistical Relational Learning*, vol. 83, no. 2, 2011.
2. J. Davis and P. Domingos, “Deep Transfer: A Markov Logic Approach,” *AI Magazine*, vol. 32, no. 1 (pp. 51-53), 2011.
3. P. Domingos, “Solving AI: We Need a New Language for Artificial Intelligence,” *Technology Review*, vol. 112, no. 2 (pp. 10-11), 2009.
4. T. Dietterich, P. Domingos, L. Getoor, S. Muggleton and P. Tadepalli, “Structured Machine Learning: The Next Ten Years,” *Machine Learning*, vol. 73, (pp. 3-23), 2008.
5. P. Domingos, “Toward Knowledge-Rich Data Mining,” *Data Mining and Knowledge Discovery*, vol. 15 (pp. 21-28), 2007.
6. M. Richardson and P. Domingos, “Markov Logic Networks,” *Machine Learning*, vol. 62 (pp. 107-136), 2006.
7. P. Domingos, “Mining Social Networks for Viral Marketing,” *IEEE Intelligent Systems*, vol. 20, no. 1 (pp. 80-82), 2005.
8. A. Doan, J. Madhavan, R. Dhamankar, P. Domingos and A. Halevy, “Learning to Match Ontologies on the Semantic Web,” *VLDB Journal*, vol. 12 (pp. 303-319), 2003.
9. P. Domingos and G. Hulten, “A General Framework for Mining Massive Data Streams,” *Journal of Computational and Graphical Statistics*, vol. 12, 2003.
10. T. Lau, S. Wolfman, P. Domingos and D. Weld, “Programming by Demonstration Using Version Space Algebra,” *Machine Learning*, vol. 53 (pp. 111-156), 2003.
11. F. Provost and P. Domingos, “Tree Induction for Probability-Based Ranking,” *Machine Learning*, vol. 52 (pp. 199-216), 2003.

12. A. Doan, P. Domingos and A. Halevy, “Learning to Match the Schemas of Data Sources: A Multistrategy Approach,” *Machine Learning*, vol. 50 (pp. 279-301), 2003.
13. P. Domingos, “The Role of Occam’s Razor in Knowledge Discovery,” *Data Mining and Knowledge Discovery*, vol. 3 (pp. 409-425), 1999.
14. P. Domingos, “Knowledge Discovery Via Multiple Models,” *Intelligent Data Analysis*, vol. 2 (pp. 187-202), 1998.
15. P. Domingos and M. Pazzani, “On the Optimality of the Simple Bayesian Classifier under Zero-One Loss,” *Machine Learning*, vol. 29 (pp. 103-130), 1997.
16. P. Domingos, “Context-Sensitive Feature Selection for Lazy Learners,” *Artificial Intelligence Review*, vol. 11 (pp. 227-253), 1997.
17. P. Domingos, “Unifying Instance-Based and Rule-Based Induction,” *Machine Learning*, vol. 24 (pp. 141-168), 1996.
18. P. Domingos, “Two-Way Induction,” *International Journal on Artificial Intelligence Tools*, vol. 5 (pp. 113-125), 1996.
19. P. Domingos, R. Casteleiro and P. Diniz, “GEAR – A 3D Computer Animation System for CAD and Simulation,” *Computers and Graphics*. Accepted for publication.
20. P. Domingos and P. Oliveira, “Intelligent Traffic Control for AGV Networks” (in Portuguese), *Técnica*, vol. 91/1 (pp. 35-39), 1992.
21. P. Domingos, R. Casteleiro and P. Diniz, “Computer Animation with the GEAR System” (in Portuguese), *Ingenium – Journal of the Portuguese Engineering Society*, vol. 31 (pp. 26-36), 1989.

REFEREED CONFERENCE PUBLICATIONS

1. H. Poon and P. Domingos, “Sum-Product Networks: A New Deep Architecture,” in *Proceedings of the Twenty-Seventh Conference on Uncertainty in Artificial Intelligence*, Barcelona, Spain, 2011. To appear.
2. V. Gogate and P. Domingos, “Probabilistic Theorem Proving,” in *Proceedings of the Twenty-Seventh Conference on Uncertainty in Artificial Intelligence*, Barcelona, Spain, 2011. To appear.
3. V. Gogate and P. Domingos, “Approximation by Quantization,” in *Proceedings of the Twenty-Seventh Conference on Uncertainty in Artificial Intelligence*, Barcelona, Spain, 2011. To appear.
4. C. Kiddon and P. Domingos, “Coarse-to-Fine Inference and Learning for First-Order Probabilistic Models,” in *Proceedings of the Twenty-Fifth AAAI Conference on Artificial Intelligence*, San Francisco, CA, 2011. To appear.
5. J. Blythe, J. Hobbs, P. Domingos, R. Kate and R. Mooney, “Implementing Weighted Abduction in Markov Logic,” in *Proceedings of the Ninth International Conference on Computational Semantics*, Oxford, United Kingdom, 2011.
6. V. Gogate, W. Webb and P. Domingos, “Learning Efficient Markov Networks,” in *Advances in Neural Information Processing Systems 23* (pp. 748-756), Vancouver, Canada, 2010.
7. D. Lowd and P. Domingos, “Approximate Inference by Compilation to Arithmetic Circuits,” in *Advances in Neural Information Processing Systems 23* (pp. 1477-1485), Vancouver, Canada, 2010.

8. V. Gogate and P. Domingos, "Formula-Based Probabilistic Inference," in *Proceedings of the Twenty-Sixth Conference on Uncertainty in Artificial Intelligence* (pp. 210-219), Catalina Island, CA, 2010.
9. H. Poon and P. Domingos, "Unsupervised Ontology Induction from Text," in *Proceedings of the Forty-Eighth Annual Meeting of the Association for Computational Linguistics* (pp. 296-305), Uppsala, Sweden, 2010.
10. J. Davis and P. Domingos, "Bottom-Up Learning of Markov Network Structure" in *Proceedings of the Twenty-Seventh International Conference on Machine Learning* (pp. 271-278), Haifa, Israel, 2010.
11. S. Kok and P. Domingos, "Learning Markov Logic Networks Using Structural Motifs" in *Proceedings of the Twenty-Seventh International Conference on Machine Learning* (pp. 551-558), Haifa, Israel, 2010.
12. A. Nath and P. Domingos, "Efficient Lifting for Online Probabilistic Inference," in *Proceedings of the Twenty-Fourth AAAI Conference on Artificial Intelligence* (pp. 1193-1198), Atlanta, GA, 2010.
13. A. Nath and P. Domingos, "Efficient Belief Propagation for Utility Maximization and Repeated Inference," in *Proceedings of the Twenty-Fourth AAAI Conference on Artificial Intelligence* (pp. 1187-1192), Atlanta, GA, 2010.
14. H. Poon and P. Domingos, "Unsupervised Semantic Parsing," in *Proceedings of the 2009 Conference on Empirical Methods in Natural Language Processing* (pp. 1-10), Singapore, 2009.
15. J. Davis and P. Domingos, "Deep Transfer via Second-Order Markov Logic" in *Proceedings of the Twenty-Sixth International Conference on Machine Learning* (pp. 217-224), Montréal, Canada, 2009.
16. S. Kok and P. Domingos, "Learning Markov Logic Network Structure via Hypergraph Lifting" in *Proceedings of the Twenty-Sixth International Conference on Machine Learning* (pp. 505-512), Montréal, Canada, 2009.
17. H. Poon and P. Domingos, "Joint Unsupervised Coreference Resolution with Markov Logic," in *Proceedings of the 2008 Conference on Empirical Methods in Natural Language Processing* (pp. 649-658), Waikiki, HI, 2008.
18. S. Kok and P. Domingos, "Extracting Semantic Networks from Text via Relational Clustering," in *Proceedings of the Nineteenth European Conference on Machine Learning* (pp. 624-639), Antwerp, Belgium, 2008.
19. P. Singla and P. Domingos, "Lifted First-Order Belief Propagation," in *Proceedings of the Twenty-Third AAAI Conference on Artificial Intelligence* (pp. 1094-1099), Chicago, IL, 2008.
20. J. Wang and P. Domingos, "Hybrid Markov Logic Networks," in *Proceedings of the Twenty-Third AAAI Conference on Artificial Intelligence* (pp. 1106-1111), Chicago, IL, 2008.
21. H. Poon and P. Domingos, "A General Method for Reducing the Complexity of Relational Inference and its Application to MCMC," in *Proceedings of the Twenty-Third AAAI Conference on Artificial Intelligence* (pp. 1075-1080), Chicago, IL, 2008.
22. D. Lowd and P. Domingos, "Learning Arithmetic Circuits," in *Proceedings of the Twenty-Fourth Conference on Uncertainty in Artificial Intelligence* (pp. 383-392), Helsinki, Finland, 2008.

23. D. Lowd and P. Domingos, "Efficient Weight Learning for Markov Logic Networks," in *Proceedings of the Eleventh European Conference on Principles and Practice of Knowledge Discovery in Databases* (pp. 200-211), Warsaw, Poland, 2007.
24. S. Kok and P. Domingos, "Statistical Predicate Invention," in *Proceedings of the Twenty-Fourth International Conference on Machine Learning* (pp. 433-440), Corvallis, OR, 2007.
25. H. Poon and P. Domingos, "Joint Inference in Information Extraction," in *Proceedings of the Twenty-Second National Conference on Artificial Intelligence* (pp. 913-918), Vancouver, Canada, 2007.
26. P. Singla and P. Domingos, "Markov Logic in Infinite Domains," in *Proceedings of the Twenty-Third Conference on Uncertainty in Artificial Intelligence* (pp. 368-375), Vancouver, Canada, 2007.
27. D. Lowd and P. Domingos, "Recursive Random Fields," in *Proceedings of the Twentieth International Joint Conference on Artificial Intelligence* (pp. 950-955), Hyderabad, India, 2007.
28. P. Singla and P. Domingos, "Entity Resolution with Markov Logic," in *Proceedings of the Sixth IEEE International Conference on Data Mining* (pp. 572-582), Hong Kong, 2006.
29. H. Poon and P. Domingos, "Sound and Efficient Inference with Probabilistic and Deterministic Dependencies," in *Proceedings of the Twenty-First National Conference on Artificial Intelligence* (pp. 458-463), Boston, MA, 2006.
30. P. Singla and P. Domingos, "Memory-Efficient Inference in Relational Domains," in *Proceedings of the Twenty-First National Conference on Artificial Intelligence* (pp. 488-493), Boston, MA, 2006.
31. S. Kok and P. Domingos, "Learning the Structure of Markov Logic Networks," in *Proceedings of the Twenty-Second International Conference on Machine Learning* (pp. 441-448), Bonn, Germany, 2005.
32. D. Lowd and P. Domingos, "Naive Bayes Models for Probability Estimation," in *Proceedings of the Twenty-Second International Conference on Machine Learning* (pp. 529-536), Bonn, Germany, 2005.
33. P. Singla and P. Domingos, "Discriminative Training of Markov Logic Networks," in *Proceedings of the Twentieth National Conference on Artificial Intelligence* (pp. 868-873), Pittsburgh, PA, 2005.
34. P. Singla and P. Domingos, "Collective Object Identification," in *Proceedings of the Nineteenth International Joint Conference on Artificial Intelligence* (pp. 1636-1637), Edinburgh, Scotland, 2005.
35. P. Singla and P. Domingos, "Object Identification with Attribute-Mediated Dependences," in *Proceedings of the Ninth European Conference on Principles and Practice of Knowledge Discovery in Databases* (pp. 297-308), Porto, Portugal, 2005.
36. N. Dalvi, P. Domingos, Mausam, S. Sanghai and D. Verma, "Adversarial Classification," in *Proceedings of the Tenth International Conference on Knowledge Discovery and Data Mining* (pp. 99-108), Seattle, WA, 2004.
37. D. Grossman and P. Domingos, "Learning Bayesian Network Classifiers by Maximizing Conditional Likelihood," in *Proceedings of the Twenty-First International Conference on Machine Learning* (pp. 361-368), Banff, Canada, 2004.

38. R. Dhamankar, Y. Lee, A. Doan, A. Halevy and P. Domingos, "iMAP: Discovering Complex Semantic Matches between Database Schemas," in *Proceedings of the 2004 ACM SIGMOD International Conference on Management of Data* (pp. 383-394), Paris, France, 2004.
39. M. Richardson and P. Domingos, "Learning with Knowledge from Multiple Experts," in *Proceedings of the Twentieth International Conference on Machine Learning* (pp. 624-631), Washington, DC, 2003.
40. M. Richardson and P. Domingos, "Building Large Knowledge Bases by Mass Collaboration," in *Proceedings of the Second International Conference on Knowledge Capture* (pp. 129-137), Sanibel Island, FL, 2003.
41. T. Lau, P. Domingos and D. Weld, "Learning Programs from Traces Using Version Space Algebra," in *Proceedings of the Second International Conference on Knowledge Capture* (pp. 36-43), Sanibel Island, FL, 2003.
42. M. Richardson, R. Agrawal and P. Domingos, "Trust Management for the Semantic Web," in *Proceedings of the Second International Semantic Web Conference* (pp. 351-368), Sanibel Island, FL, 2003.
43. M. Richardson and P. Domingos, "Mining Knowledge-Sharing Sites for Viral Marketing," in *Proceedings of the Eighth International Conference on Knowledge Discovery and Data Mining* (pp. 61-70), Edmonton, Canada, 2002.
44. C. Anderson, P. Domingos and D. Weld, "Relational Markov Models and their Application to Adaptive Web Navigation," in *Proceedings of the Eighth International Conference on Knowledge Discovery and Data Mining* (pp. 143-152), Edmonton, Canada, 2002.
45. G. Hulten and P. Domingos, "Mining Complex Models from Arbitrarily Large Databases in Constant Time," in *Proceedings of the Eighth International Conference on Knowledge Discovery and Data Mining* (pp. 525-531), Edmonton, Canada, 2002.
46. J. Madhavan, P. Bernstein, P. Domingos and A. Halevy, "Representing and Reasoning about Mappings between Domain Models," in *Proceedings of the Eighteenth National Conference on Artificial Intelligence* (pp. 80-86), Edmonton, Canada, 2002.
47. A. Doan, J. Madhavan, P. Domingos and A. Halevy, "Learning to Map between Ontologies on the Semantic Web," in *Proceedings of the Eleventh International World Wide Web Conference* (pp. 662-673), Honolulu, HI, 2002.
48. P. Domingos and G. Hulten, "Learning from Infinite Data in Finite Time," in *Advances in Neural Information Processing Systems 14* (pp. 673-680), Vancouver, Canada, 2001.
49. M. Richardson and P. Domingos, "The Intelligent Surfer: Probabilistic Combination of Link and Content Information in PageRank," in *Advances in Neural Information Processing Systems 14* (pp. 1441-1448), Vancouver, Canada, 2001.
50. P. Domingos and M. Richardson, "Mining the Network Value of Customers," in *Proceedings of the Seventh International Conference on Knowledge Discovery and Data Mining* (pp. 57-66), San Francisco, CA, 2001.
51. G. Hulten, L. Spencer and P. Domingos, "Mining Time-Changing Data Streams," in *Proceedings of the Seventh International Conference on Knowledge Discovery and Data Mining* (pp. 97-106), San Francisco, CA, 2001.
52. C. Anderson, P. Domingos and D. Weld, "Adaptive Web Navigation for Wireless Devices," in *Proceedings of the Seventeenth International Joint Conference on Artificial Intelligence* (pp. 879-884), Seattle, WA, 2001.

53. P. Domingos and G. Hulten, "A General Method for Scaling Up Machine Learning Algorithms and its Application to Clustering," in *Proceedings of the Eighteenth International Conference on Machine Learning* (pp. 106-113), Williamstown, MA, 2001.
54. A. Doan, P. Domingos and A. Halevy, "Reconciling Schemas of Disparate Data Sources: A Machine-Learning Approach," in *Proceedings of the 2001 ACM SIGMOD International Conference on Management of Data* (pp. 509-520), Santa Barbara, CA, 2001.
55. C. Anderson, P. Domingos and D. Weld, "Personalizing Web Sites for Mobile Users," in *Proceedings of the Tenth International World Wide Web Conference* (pp. 565-575), Hong Kong, 2001.
56. S. Wolfman, T. Lau, P. Domingos and D. Weld, "Mixed Initiative Interfaces for Learning Tasks: SMARTedit Talks Back," in *Proceedings of the Fifth International Conference on Intelligent User Interfaces* (pp. 167-174), Santa Fe, NM, 2001.
57. P. Domingos and G. Hulten, "Mining High-Speed Data Streams," in *Proceedings of the Sixth International Conference on Knowledge Discovery and Data Mining* (pp. 71-80), Boston, MA, 2000.
58. P. Domingos, "A Unified Bias-Variance Decomposition for Zero-One and Squared Loss," in *Proceedings of the Seventeenth National Conference on Artificial Intelligence* (pp. 564-569), Austin, TX, 2000.
59. P. Domingos, "Bayesian Averaging of Classifiers and the Overfitting Problem," in *Proceedings of the Seventeenth International Conference on Machine Learning* (pp. 223-230), Stanford, CA, 2000.
60. T. Lau, P. Domingos and D. Weld, "Version Space Algebra and its Application to Programming by Demonstration," in *Proceedings of the Seventeenth International Conference on Machine Learning* (pp. 527-534), Stanford, CA, 2000.
61. P. Domingos, "A Unified Bias-Variance Decomposition and its Applications," in *Proceedings of the Seventeenth International Conference on Machine Learning* (pp. 231-238), Stanford, CA, 2000.
62. P. Domingos, "MetaCost: A General Method for Making Classifiers Cost-Sensitive," in *Proceedings of the Fifth International Conference on Knowledge Discovery and Data Mining* (pp. 155-164), San Diego, CA, 1999.
63. P. Domingos, "Process-Oriented Estimation of Generalization Error," in *Proceedings of the Sixteenth International Joint Conference on Artificial Intelligence* (pp. 714-719), Stockholm, Sweden, 1999.
64. P. Domingos, "Occam's Two Razors: The Sharp and the Blunt," in *Proceedings of the Fourth International Conference on Knowledge Discovery and Data Mining* (pp. 37-43), New York, 1998.
65. P. Domingos, "A Process-Oriented Heuristic for Model Selection," in *Proceedings of the Fifteenth International Conference on Machine Learning* (pp. 127-135), Madison, WI, 1998.
66. P. Domingos, "Why Does Bagging Work? A Bayesian Account and its Implications," in *Proceedings of the Third International Conference on Knowledge Discovery and Data Mining* (pp. 155-158), Newport Beach, CA, 1997.
67. P. Domingos, "Learning Multiple Models Without Sacrificing Comprehensibility" (student abstract), in *Proceedings of the Fourteenth National Conference on Artificial Intelligence* (p. 829), Providence, RI, 1997.

68. P. Domingos, "A Comparison of Model Averaging Methods in Foreign Exchange Prediction" (student abstract), in *Proceedings of the Fourteenth National Conference on Artificial Intelligence* (p. 828), Providence, RI, 1997.
69. P. Domingos, "Knowledge Acquisition from Examples Via Multiple Models," in *Proceedings of the Fourteenth International Conference on Machine Learning* (pp. 98-106), Nashville, TN, 1997.
70. P. Domingos, "Towards a Unified Approach to Concept Learning" (student abstract), in *Proceedings of the Thirteenth National Conference on Artificial Intelligence* (p. 1361), Portland, OR, 1996.
71. P. Domingos, "Fast Discovery of Simple Rules" (student abstract), in *Proceedings of the Thirteenth National Conference on Artificial Intelligence* (p. 1384), Portland, OR, 1996.
72. P. Domingos, "Multistrategy Learning: A Case Study" (student abstract), in *Proceedings of the Thirteenth National Conference on Artificial Intelligence* (p. 1385), Portland, OR, 1996.
73. P. Domingos and M. Pazzani, "Simple Bayesian Classifiers Do Not Assume Independence" (student abstract), in *Proceedings of the Thirteenth National Conference on Artificial Intelligence* (p. 1386), Portland, OR, 1996.
74. P. Domingos, "Linear-Time Rule Induction," in *Proceedings of the Second International Conference on Knowledge Discovery and Data Mining* (pp. 96-101), Portland, OR, 1996.
75. P. Domingos, "Efficient Specific-to-General Rule Induction," in *Proceedings of the Second International Conference on Knowledge Discovery and Data Mining* (pp. 319-322), Portland, OR, 1996.
76. P. Domingos and M. Pazzani, "Beyond Independence: Conditions for the Optimality of the Simple Bayesian Classifier," in *Proceedings of the Thirteenth International Conference on Machine Learning* (pp. 105-112), Bari, Italy, 1996.
77. P. Domingos, "Two-Way Induction," in *Proceedings of the Seventh IEEE International Conference on Tools with Artificial Intelligence* (pp. 182-189), Herndon, VA, 1995.
78. P. Domingos and E. Morgado, "Progressive Rules: A Method for Representing and Using Real-Time Knowledge," in *Proceedings of the Seventh IEEE International Conference on Tools with Artificial Intelligence* (pp. 408-415), Herndon, VA, 1995.
79. P. Domingos, "Rule Induction and Instance-Based Learning: A Unified Approach," in *Proceedings of the Fourteenth International Joint Conference on Artificial Intelligence* (pp. 1226-1232), Montréal, Canada, 1995.
80. P. Domingos, "The RISE System: Conquering Without Separating," in *Proceedings of the Sixth IEEE International Conference on Tools with Artificial Intelligence* (pp. 704-707), New Orleans, LA, 1994.
81. P. Domingos and E. Morgado, "Competitive Recall: A Model for Real-Time Reasoning," in *Proceedings of the Fourth Iberoamerican Congress on Artificial Intelligence* (pp. 3-14), Caracas, Venezuela, 1994.

REFEREED WORKSHOP PUBLICATIONS

1. H. Poon and P. Domingos, “Sum-Product Networks: A New Deep Architecture,” in *NIPS-2010 Workshop on Deep Learning and Unsupervised Feature Learning*, Whistler, Canada, 2010.
2. C. Kiddon and P. Domingos, “Towards a General Framework for Coarse-to-Fine Inference and Learning,” in *NIPS-2010 Workshop on Coarse-to-Fine Learning and Inference*, Whistler, Canada, 2010.
3. V. Gogate and P. Domingos, “Exploiting Logical Structure in Lifted Probabilistic Inference,” in *Proceedings of the AAAI-2010 Workshop on Statistical Relational Artificial Intelligence* (pp. 19-24), Atlanta, GA, 2010.
4. C. Kiddon and P. Domingos, “Leveraging Ontologies for Lifted Probabilistic Inference and Learning,” in *Proceedings of the AAAI-2010 Workshop on Statistical Relational Artificial Intelligence* (pp. 40-45), Atlanta, GA, 2010.
5. S. Kok and P. Domingos, “Using Structural Motifs for Learning Markov Logic Networks,” in *Proceedings of the AAAI-2010 Workshop on Statistical Relational Artificial Intelligence* (pp. 46-51), Atlanta, GA, 2010.
6. A. Nath and P. Domingos, “Efficient Lifting for Online Probabilistic Inference,” in *Proceedings of the AAAI-2010 Workshop on Statistical Relational Artificial Intelligence* (pp. 64-69), Atlanta, GA, 2010.
7. H. Poon and P. Domingos, “Machine Reading: A ‘Killer App’ for Statistical Relational AI,” in *Proceedings of the AAAI-2010 Workshop on Statistical Relational Artificial Intelligence* (pp. 76-81), Atlanta, GA, 2010.
8. P. Singla, A. Nath and P. Domingos, “Approximate Lifted Belief Propagation,” in *Proceedings of the AAAI-2010 Workshop on Statistical Relational Artificial Intelligence* (pp. 92-97), Atlanta, GA, 2010.
9. Hoifung Poon, Janara Christensen, Pedro Domingos, Oren Etzioni, Raphael Hoffmann, Chloe Kiddon, Thomas Lin, Xiao Ling, Mausam, Alan Ritter, Stefan Schoenmackers, Stephen Soderland, Dan Weld, Fei Wu and Congle Zhang, “Machine Reading at the University of Washington,” in *Proceedings of the NAACL/HLT-2010 Workshop on Formalisms and Methodology for Learning by Reading*, Los Angeles, 2010.
10. H. Poon and P. Domingos, “Deep Learning for Semantic Parsing,” in *NIPS-2009 Workshop on Deep Learning for Speech Recognition and Related Applications*, Whistler, Canada, 2009.
11. R. Gens and P. Domingos, “Competitive Learning for Deep Temporal Networks,” in *NIPS-2009 Workshop on Deep Learning for Speech Recognition and Related Applications*, Whistler, Canada, 2009.
12. A. Nath and P. Domingos, “Relational Decision Theory,” in *Proceedings of the Sixth International Workshop on Statistical Relational Learning*, Leuven, Belgium, 2009.
13. S. Kok and P. Domingos, “Hypergraph Lifting for Structure Learning in Markov Logic Networks,” in *Proceedings of the Sixth International Workshop on Statistical Relational Learning*, Leuven, Belgium, 2009.
14. P. Domingos, “What We Can Do with Markov Logic Today,” in *NIPS-2008 Workshop on Probabilistic Programming*, Whistler, Canada, 2008.

15. J. Davis and P. Domingos, "Deep Transfer via Second-Order Markov Logic," in *Proceedings of the AAAI-2008 Workshop on Transfer Learning for Complex Tasks* (pp. 13-18), Chicago, IL, 2008.
16. D. Lowd, C. Meek and P. Domingos, "Foundations of Adversarial Machine Learning," in *NIPS-2007 Workshop on Machine Learning in Adversarial Environments for Computer Security*, Whistler, Canada, 2007.
17. D. Lowd and P. Domingos, "Recursive Random Fields," in *Proceedings of the ICML-2006 Workshop on Open Problems in Statistical Relational Learning*, Pittsburgh, PA, 2006.
18. S. Kok and P. Domingos, "Toward Statistical Predicate Invention," in *Proceedings of the ICML-2006 Workshop on Open Problems in Statistical Relational Learning*, Pittsburgh, PA, 2006.
19. P. Domingos and M. Richardson, "Markov Logic: A Unifying Framework for Statistical Relational Learning," in *Proceedings of the ICML-2004 Workshop on Statistical Relational Learning and its Connections to Other Fields* (pp. 49-54), Banff, Canada, 2004.
20. Parag and P. Domingos, "Multi-Relational Record Linkage," in *Proceedings of the Third International Workshop on Multi-Relational Data Mining* (pp. 31-48), Seattle, WA, 2004.
21. X. Dong, A. Halevy, E. Nemes, S. Sigurdsson and P. Domingos, "SEMEX: Mining for Personal Information Integration," in *Proceedings of the International Workshop on Mining for and from the Semantic Web* (pp. 44-55), Seattle, WA, 2004.
22. X. Dong, A. Halevy, E. Nemes, S. Sigurdsson and P. Domingos, "SEMEX: Toward On-the-Fly Personal Information Integration," in *Proceedings of the VLDB-2004 Workshop on Information Integration on the Web* (pp. 58-63), Toronto, Canada, 2004.
23. P. Domingos, Y. Abe, C. Anderson, A. Doan, D. Fox, A. Halevy, G. Hulten, H. Kautz, T. Lau, L. Liao, J. Madhavan, Mausam, D. Patterson, M. Richardson, S. Sanghai, D. Weld and S. Wolfman, "Research on Statistical Relational Learning at the University of Washington," in *Proceedings of the IJCAI-2003 Workshop on Learning Statistical Models from Relational Data* (pp. 43-47), Acapulco, Mexico, 2003.
24. G. Hulten, P. Domingos and Y. Abe, "Mining Massive Relational Databases," in *Proceedings of the IJCAI-2003 Workshop on Learning Statistical Models from Relational Data* (pp. 53-60), Acapulco, Mexico, 2003.
25. C. Anderson, P. Domingos and D. Weld, "Web Site Personalizers for Mobile Devices," in *Proceedings of the IJCAI-2001 Workshop on Intelligent Techniques for Web Personalization* (pp. 7-12), Seattle, WA, 2001.
26. P. Domingos and G. Hulten, "Catching Up with the Data: Research Issues in Mining Data Streams," in *Proceedings of the 2001 Workshop on Research Issues in Data Mining and Knowledge Discovery* (pp. 47-51), Santa Barbara, CA, 2001.
27. T. Lau, P. Domingos and D. Weld, "Learning How to Edit Text," in *Proceedings of the AAAI 2000 Fall Symposium on Learning How to Do Things* (pp. 41-46), Cape Cod, MA, 2000.
28. A. Doan, P. Domingos and A. Halevy, "Learning Mappings between Data Schemas," in *Proceedings of the AAAI-2000 Workshop on Learning Statistical Models from Relational Data* (pp. 1-6), Austin, TX, 2000.
29. A. Doan, P. Domingos and A. Levy, "Learning Source Descriptions for Data Integration," in *Proceedings of the Third International Workshop on the Web and Databases* (pp. 81-86), Dallas, TX, 2000.

30. T. Lau, P. Domingos and D. Weld, "Intelligent macros for text-editing," in *Proceedings of the IUI-2000 Workshop on Using Plans in Intelligent User Interfaces* (pp. 4-6), New Orleans, LA, 2000.
31. P. Domingos, "Data Pre-Processing for Cost-Sensitive Learning," in *Proceedings of the ICML-99 Workshop: From Machine Learning to Knowledge Discovery in Databases* (pp. 17-25), Bled, Slovenia, 1999.
32. P. Domingos, "Process-Oriented Evaluation: The Next Step," in *Proceedings of Uncertainty '99: The Seventh International Workshop on Artificial Intelligence and Statistics* (pp. 51-58), Ft. Lauderdale, FL, 1999.
33. P. Domingos, "How to Get a Free Lunch: A Simple Cost Model for Machine Learning Applications," in *Proceedings of the AAAI-98/ICML-98 Workshop on the Methodology of Applying Machine Learning* (pp. 1-7), Madison, WI, 1998.
34. P. Domingos, "Multimodal Inductive Reasoning: Combining Rule-Based and Case-Based Learning," in *Proceedings of the AAAI 1998 Spring Symposium on Multimodal Reasoning* (pp. 135-140), Stanford, CA, 1998.
35. P. Domingos, "Bayesian Model Averaging in Rule Induction," in *Preliminary Papers of the Sixth International Workshop on Artificial Intelligence and Statistics* (pp. 157-164), Ft. Lauderdale, FL, 1997.
36. P. Domingos, "Using Partitioning to Speed Up Specific-to-General Rule Induction," in *Proceedings of the AAAI-96 Workshop on Integrating Multiple Learned Models for Improving and Scaling Machine Learning Algorithms* (pp. 29-34), Portland, OR, 1996.
37. P. Domingos, "Exploiting Context in Feature Selection," in *Proceedings of the ICML-96 Workshop on Learning in Context-Sensitive Domains* (pp. 15-20), Bari, Italy, 1996.
38. P. Domingos, "From Instances to Rules: A Comparison of Biases," in *Proceedings of the Third International Workshop on Multistrategy Learning* (pp. 147-154), Harpers Ferry, WV, 1996.

INVITED AND UNREFEREED PUBLICATIONS

1. H. Poon and P. Domingos, "Sum-Product Networks for Deep Learning," in *Proceedings of the Twenty-Sixth Snowbird Learning Workshop*, Ft. Lauderdale, FL, 2011.
2. P. Domingos, "Markov Logic Networks: A Step Towards a Unified Theory of Learning and Cognition," in *Proceedings of the Twenty-Fifth Snowbird Learning Workshop*, Snowbird, UT, 2010.
3. J. Davis and P. Domingos, "Deep Transfer: A Markov Logic Approach," in *Proceedings of the Twenty-Fifth Snowbird Learning Workshop*, Snowbird, UT, 2010.
4. H. Poon and P. Domingos, "Unsupervised Language Learning: Semantic Parsing and Beyond," in *Proceedings of the Twenty-Fifth Snowbird Learning Workshop*, Snowbird, UT, 2010.
5. P. Domingos, "Markov Logic: A Unifying Language for Knowledge and Information Management," in *Proceedings of the Seventeenth ACM Conference on Information and Knowledge Management* (p. 519), Napa Valley, CA, 2008.
6. P. Singla and P. Domingos, "Markov Logic in Infinite Domains," in *Proceedings of Dagstuhl Seminar on Probabilistic, Logical and Relational Learning – A Further Synthesis*, Schloss Dagstuhl, Germany, 2007.

7. P. Domingos, S. Kok, H. Poon, M. Richardson and P. Singla, "Unifying Logical and Statistical AI," in *Proceedings of the Twenty-First National Conference on Artificial Intelligence* (pp. 2-7), Boston, MA, 2006.
8. P. Domingos, "Learning, Logic, and Probability: A Unified View," in *Proceedings of the Ninth Pacific Rim International Conference on Artificial Intelligence* (p.2), Guilin, China, 2006.
9. P. Domingos, "Learning, Logic, and Probability: A Unified View," in *Proceedings of the Tenth Ibero-American Conference on Artificial Intelligence* (p. 3), Ribeirão Preto, Brazil, 2006.
10. P. Domingos, "Learning, Logic, and Probability: A Unified View," in *Proceedings of the Fifteenth International Conference on Knowledge Engineering and Knowledge Management* (p.2), Podybrady, Czech Republic, 2006.
11. P. Domingos, "Learning, Logic, and Probability: A Unified View," in *Proceedings of the Fourteenth International Conference on Inductive Logic Programming* (p. 359), Porto, Portugal, 2004.
12. P. Domingos, "Learning, Logic, and Probability: A Unified View," in *Proceedings of the Fifteenth International Conference on Algorithmic Learning Theory* (p. 53), Padova, Italy, 2004.
13. P. Domingos, "Real-World Learning with Markov Logic Networks," in *Proceedings of the Eighth European Conference on Principles and Practice of Knowledge Discovery in Databases* (p. 17), Pisa, Italy, 2004.
14. P. Domingos, "Real-World Learning with Markov Logic Networks," in *Proceedings of the Fifteenth European Conference on Machine Learning* (p. 17), Pisa, Italy, 2004.
15. P. Domingos and M. Richardson, "Learning from Networks of Examples," in *Proceedings of the Eleventh Portuguese Conference on Artificial Intelligence* (p. 5), Beja, Portugal, 2003.
16. P. Domingos, "Prospects and Challenges for Multi-Relational Data Mining," *SIGKDD Explorations*, vol. 5 (pp. 80-83), 2003.
17. D. Weld, C. Anderson, P. Domingos, O. Etzioni, K. Gajos and T. Lau, "Automatically Personalizing User Interfaces," in *Proceedings of the Eighteenth International Joint Conference on Artificial Intelligence* (pp. 1613-1619), Acapulco, Mexico, 2003.
18. P. Domingos and G. Hulten, "A General Framework for Mining Massive Data Streams," in *Proceedings of the National Academies Workshop on Statistical Analysis of Massive Data Streams*, Washington, DC, 2002.
19. P. Domingos and M. Richardson, "Data Mining for Viral Marketing," in *Proceedings of the Thirty-Fourth Symposium on the Interface of Computing Science and Statistics* (on CD), Montréal, Canada, 2002.
20. P. Domingos, "When and How to Subsample: Report on the KDD-2001 Panel," in *SIGKDD Explorations*, vol. 3 (pp. 74-75), 2002.
21. P. Domingos, "Beyond Occam's Razor: Process-Oriented Evaluation" (abstract), in *Proceedings of the Eleventh European Conference on Machine Learning* (p. 3), Barcelona, Spain, 2000.
22. P. Domingos, "Research Directions in MetaCost" (abstract), in *Proceedings of the ICML-2000 Workshop on Cost-Sensitive Learning* (p. 59), Stanford, CA, 2000.
23. P. Domingos, "Why Do Model Ensembles Work?" (abstract), in *Proceedings of the ICML-2000 Workshop on What Works Well Where* (p. 1), Stanford, CA, 2000.

24. A. Doan, P. Domingos and A. Levy, "Data Integration: A 'Killer App' for Multistrategy Learning," in *Proceedings of the Fifth International Workshop on Multistrategy Learning* (pp. 129-135), Guimarães, Portugal, 2000.
25. P. Domingos, "Occam's Two Razors: The Sharp and the Blunt," in *Proceedings of the Thirty-First Symposium on the Interface of Computing Science and Statistics* (pp. 182-189), Schaumburg, IL, 1999.
26. P. Domingos, "When (and How) to Combine Predictive and Causal Learning" (abstract), in *NIPS-98 Workshop on Integrating Supervised and Unsupervised Learning* (online), Breckenridge, CO, 1998.
27. P. Domingos, "We Still Don't Know Why Model Ensembles Work" (abstract), in *NIPS-98 Workshop on Turnkey Algorithms for Improving Generalizers* (online), Breckenridge, CO, 1998.
28. P. Domingos, "Data Mining with RISE and CWS," in *Proceedings of the Fourth International Workshop on Multistrategy Learning* (pp. 1-12), Desenzano del Garda, Italy, 1998.
29. P. Domingos, "A Unified Approach to Concept Learning," Technical Report UCI-ICS 97-27, Department of Information and Computer Science, University of California, Irvine, CA, 1997.
30. P. Domingos, "Cases or Rules? The Case for Unification" (abstract), in *Proceedings of the Eighteenth Annual Conference of the Cognitive Science Society* (p. 756), San Diego, CA, 1996.
31. P. Domingos, "Playing Go by Search-Embedded Pattern Recognition" (abstract), in *Proceedings of the Eighteenth Annual Conference of the Cognitive Science Society* (p. 757), San Diego, CA, 1996.
32. P. Domingos, "The RISE 2.0 System: A Case Study in Multistrategy Learning," Technical Report UCI-ICS 95-2, Department of Information and Computer Science, University of California, Irvine, CA, 1995.
33. P. Domingos, "Design and Evaluation of the RISE 1.0 Learning System," Technical Report UCI-ICS 94-34, Department of Information and Computer Science, University of California, Irvine, CA, 1994.
34. P. Domingos, "Competitive Recall: A Memory Model for Real-Time Reasoning" (in Portuguese), Technical Report GIA 92/05, Artificial Intelligence Group, Instituto Superior Técnico, Lisbon, Portugal, 1992.
35. P. Domingos, R. Casteleiro and P. Diniz, "Design and Development of the GEAR Computer Animation System" (in Portuguese), in *Second Portuguese Workshop on Computer Graphics*, Porto, Portugal, 1989.
36. P. Domingos, "Towards Artificial Realities" (in Portuguese), *Expresso*, supplement on the Second National Conference on Computer-Aided Design, Planning and Production (pp. 14-15), 1989.
37. P. Domingos, R. Casteleiro and P. Diniz, "Introduction to the GEAR Computer Animation System," in *First Luso-German Workshop on Computer Graphics*, Lisbon, Portugal, 1988.

TUTORIALS

(See invited talks section for invited tutorials.)

1. E. Amir, P. Domingos, L. Getoor, K. Kersting, B. Milch, S. Natarajan, D. Poole, L. de Salvo Braz and P. Sen, *Lifted Inference in Probabilistic Logical Models*, Twenty-Second International Joint Conference on Artificial Intelligence, Barcelona, Spain, 2011.
2. P. Domingos, *Statistical Modeling of Relational Data*, Thirteenth Intl. Conf. on Knowledge Discovery and Data Mining, San Jose, CA, 2007.
3. P. Domingos, *Practical Statistical Relational Learning*, Twenty-Fourth International Conference on Machine Learning, Corvallis, OR, 2007.
4. P. Domingos, *Practical Statistical Relational AI*, Twenty-Second National Conference on Artificial Intelligence, Vancouver, Canada, 2007.