# Pedro Domingos: Vita

Pedro Domingos Department of Computer Science and Engineering University of Washington Box 352350 Seattle, WA 98195-2350

# Education

Ph.D. in Information and Computer Science, University of California at Irvine, 1997.

M.S. in Information and Computer Science, University of California at Irvine, 1994.

M.S. in Electrical Engineering and Computer Science, Instituto Superior Técnico, Portugal, 1992. Licenciatura (5-year degree) in Electrical Engineering and Computer Science, Instituto Superior Técnico, Lisbon, Portugal, 1992.

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# **Professional Experience**

Assistant Professor of Computer Science & Engineering, University of Washington, Seattle (1999–). Courses taught: artificial intelligence.

Assistant Professor, Instituto Superior Técnico, Lisbon, Portugal (1998–99). Courses taught: machine learning, natural language processing; co-taught: intelligent systems.

Consultant, Irvine Research Corporation, Irvine, CA (1994).

Research and Teaching Assistant, Instituto Superior Técnico, Lisbon, Portugal (1987–92). Courses taught: probability and statistics, applied mathematics (instructor), introduction to computer science, artificial intelligence.

Programmer, Center for Psychotechnical Studies, Portuguese Army, Lisbon, Portugal (1989–90).

Research Scientist, Instituto de Engenharia de Sistemas e Computadores, Portugal (1987–88).

Research Intern, Instituto de Engenharia de Sistemas e Computadores, Lisbon, Portugal (1987–88).

Teacher of continuing education courses, FUNDETEC, Lisbon, Portugal (1987–88).

#### Honors and Awards

NSF CAREER Award (1999).

Best paper, Fifth International Conference on Knowledge Discovery and Data Mining (1999).

Best paper, Fourth International Conference on Knowledge Discovery and Data Mining (1998).

UCI nominee for ACM Doctoral Dissertation Award (1997).

NATO scholarship (1996–97).

Fulbright scholarship (1992–97).

Outstanding reviewer, Fifteenth International Joint Conference on Artificial Intelligence (1997).

SIGART/AAAI Doctoral Consortium (1996).

University of California Regents' Dissertation Fellowship (1996).

Portuguese Science Foundation scholarship (1992–96).

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

Honorable mention in the Descartes Award (1990).

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

# Service

Member of editorial board: Applied Intelligence, Evaluation of Intelligent Systems.

Member of program committee: ECML-2000, KDD-99, IJCAI-99, AAAI-99, ICML-99, KDD-98, AAAI-98, ICML-98, AAAI-97, workshops.

Reviewer: Machine Learning, Knowledge Discovery and Data Mining, Journal of Artificial Intelligence Research, Artificial Intelligence Review, Intelligent Data Analysis, IEEE Computer, IEEE Intelligent Systems, CogSci-98, IJCAI-97.

#### Grants

Ubiquitous, Large-Scale Machine Learning, National Science Foundation CAREER Award, \$313,695 (2000–2004).

Algorithms for Data Mining, Portuguese Science Foundation, PRAXIS/P/EEI/10142/1998, PTE 3,500,000 (1998–99).

# Selected Invited Talks

1999: IJCAI-99 Workshop on Support Vector Machines.

1999: Thirty-First Symposium on the Interface of Computing Science and Statistics: Models, Predictions, and Computing (Schaumburg, IL).

1998: NIPS-98 Workshop on Turnkey Algorithms for Improving Generalizers (Breckenridge, CO).

1998: International Summer School on Knowledge Discovery in Databases and Data Mining (Caminha, Portugal).

1998: Fourth International Workshop on Multistrategy Learning (Desenzano del Garda, Italy).

1998: Microsoft Research (Redmond, WA).

1997: International Workshop on Stochastic Model Building and Variable Selection (Duke University, Durham, NC).

1997: George Mason University (Fairfax, VA).

1997: AT&T Laboratories (Murray Hill, NJ).

1996: University of California, San Diego.

1996: Daimler-Benz Research Center (Ulm. Germany).

1995: Naval Research Laboratory (Washington, DC).

# Selected Book Chapters

"Machine Learning," in *Handbook of Data Mining and Knowledge Discovery*, edited by Willi Klösgen and Jan Żytkow, Oxford University Press. To appear.

"Web Mining," in *The Future of the Internet* (in Portuguese), edited by José A. Alves, Pedro Campos and Pedro Q. Brito, Centro Atlântico, 1999.

# Selected Journal Articles

- "The Role of Occam's Razor in Knowledge Discovery," Data Mining and Knowledge Discovery, vol. 3, 1999.
- "Knowledge Discovery Via Multiple Models," Intelligent Data Analysis, vol. 2, 1998.
- "On the Optimality of the Simple Bayesian Classifier under Zero-One Loss," first author, with Michael Pazzani, *Machine Learning*, vol. 29, 1997.
- "Context-Sensitive Feature Selection for Lazy Learners," Artificial Intelligence Review, vol. 11, 1997.
- "Unifying Instance-Based and Rule-Based Induction," Machine Learning, vol. 24, 1996.
- "Two-Way Induction," International Journal on Artificial Intelligence Tools, vol. 5, 1996.

# Selected Conference Publications

- "MetaCost: A General Method for Making Classifiers Cost-Sensitive," in *Proceedings of the Fifth International Conference on Knowledge Discovery and Data Mining*, San Diego, CA, 1999.
- "Process-Oriented Estimation of Generalization Error," in *Proceedings of the Sixteenth International Joint Conference on Artificial Intelligence*, Stockholm, Sweden, 1999.
- "Occam's Two Razors: The Sharp and the Blunt," in *Proceedings of the Fourth International Conference on Knowledge Discovery and Data Mining*, New York, 1998.
- "A Process-Oriented Heuristic for Model Selection," in *Proceedings of the Fifteenth International Conference on Machine Learning*, Madison, WI, 1998.
- "Why Does Bagging Work? A Bayesian Account and its Implications," in *Proceedings of the Third International Conference on Knowledge Discovery and Data Mining*, Newport Beach, CA, 1997.
- "Knowledge Acquisition from Examples Via Multiple Models," in *Proceedings of the Fourteenth International Conference on Machine Learning*, Nashville, TN, 1997.
- "Bayesian Model Averaging in Rule Induction," in *Preliminary Papers of the Sixth International Workshop on Artificial Intelligence and Statistics*, Ft. Lauderdale, FL, 1997.
- "Linear-Time Rule Induction," in *Proceedings of the Second International Conference on Knowledge Discovery and Data Mining*, Portland, OR, 1996.
- "Efficient Specific-to-General Rule Induction," in *Proceedings of the Second International Conference on Knowledge Discovery and Data Mining*, Portland, OR, 1996.
- "Beyond Independence: Conditions for the Optimality of the Simple Bayesian Classifier," first author, with Michael Pazzani, in *Proceedings of the Thirteenth International Conference on Machine Learning*, Bari, Italy, 1996.
- "Rule Induction and Instance-Based Learning: A Unified Approach," in *Proceedings of the Fourteenth International Joint Conference on Artificial Intelligence*, Montréal, Canada, 1995.