# Curriculum Vitae

# Dunja Mladenić

## Research interests

Artificial intelligence, machine learning, learning on text and the Web, intelligent agents, applications of machine learning, data mining. Most of my research work is connected with the the study and development of machine learning techniques and their applications on real-world problems from different areas eg., medicine, farmacology, manufacturing, economy and recently learning on Web.

## Education

- Ph.D., Computer Science (AI), University of Ljubljana, October 1998. Dissertation: *Machine learning on non-homogeneous, distributed text data.* Thesis advisors: Ivan Bratko, Tom Mitchell.
- M.Sc., Computer Science (AI), University of Ljubljana, September 1995. Thesis:*Domain-Tailored Machine Learning.* Thesis advisors: Ivan Bratko, Nada Lavrač.
- B.Sc., Computer Science, University of Ljubljana, June 1990. Thesis:*Machine Learning System: Magnus Assistant.* Thesis advisor: Ivan Bratko.
- High School, emphases on mathematics and computer science, Rijeka, Croatia, May 1985.

## Research experience

- 1987-1992, J. Stefan Institute, as undergraduate student.
- 1992-1998, J. Stefan Institute, as graduate student and young researcher.
- 1999-present, J. Stefan Institute, as researcher.
- 1996-1997, Carnegie Mellon University, prof. Tom Mitchell, 1 year visit, research on *machine learning in data analysis, with particular interest in learning from text applied on World Wide Web documents and intelligent agents.*

- 1993, Brunel-The University of West London, prof. Ray J. Paul, 1 month visit, research on *application of machine learning on discrete event simulation analysis.*
- 1991-1992, Katholieke Universiteit Leuven, Belgium, 1 month visit.

## Teaching experience

- 1993-present, advising undergraduate research projects in Computer Science (AI), prof. Ivan Bratko, prof. Tatjana Zrimec, University of Ljubljana.
- 1995-1996, Teaching Assistant in Computer Science (programming techniques), University of Rijeka.

## Research projects/systems developed

- 1999-2001, Analysis of large text datasets, (Dunja Mladenić, PI)
- 1999-2001, Reflection in Machine Learning, (Damjan Bojadžiev, PI)
- 1998-2001, Development of Digital Publishing with Distance Learning Support (Tomaž Erjavec, PI)
- 1995-1997, Knowledge synthesis from data, basic research project (Ivan Bratko, PI)
- 1995-1997, Analysis of clinical bases and medical knowledge synthesis, basic research project (Nada Lavrač, PI)
- 1996-2000 Slovenian Economy in Transition towards Market Economy (Janez Prašnikar, PI)
- 1992-1997, ESPRIT III and IV European Network of Excellence in Machine Learning (Slovenian network manager Ivan Bratko, Slovenian coordinators Nada Lavrač, Dunja Mladenić)
- 1994-1996, Computerized information system supporting therapeutic activities in health care, applicative project (Marko Bohanec, PI)
- 1992-1995, TEMPUS JEP 4724, Postgraduate study of Water Resources Management and Sanitary Engineering (Ivan Bratko, PI)
- 1992-1994, Automated knowledge synthesis, basic research project (Ivan Bratko, PI)

## Professional activities

- 1996-present, Executive board member of Slovenian Artificial Intelligence Society SLAIS
- 1999, Program Committee member, *The Sixteenth International Conference on Machine Learning (ICML'99)*
- 1999, Program Committee member, ICML'99 *Workshop on Recent Advances in Meta-Learning and Future Work*
- 1999, Program Committee member, ICML'99 *Workshop on Machine Learning in Text Data Analysis*
- 1999, Program Committee member, *Analzying, warehousing and mining the data*, Ljubljana, Slovenia.
- 1999, Program Committee member, *Information Society Conference IS'99*, Ljubljana, Slovenia.
- 1998, Program Committee member, ECML'98 *Workshop on Upgrading Learning to the Meta-Level: Model Selection and Data Transformation*
- 1999, Workshop Chair for *The Sixteenth International Conference on Machine Learning (ICML'99)*
- 1999, Conference Co-Organizer, *Information Society IS'99*, Ljubljana, Slovenia.
- 1999, Conference Co-Organizer, *Analzying, warehousing and mining the data*, Ljubljana, Slovenia.
- 1999, Workshop Co-Organizer, ICML'99 Workshop on *Machine Learning in Text Data Analysis*, Bled, Slovenia.
- 1998, Conference Co-Organizer, *Information Society Conference IS'98*, Ljubljana, Slovenia.
- 1995, Workshop Co-Organizer, *Computer-Aided Data Analysis in Medicine (CADAM'95)*, Bled, Slovenia.
- 1993, Workshop Co-Organizer, *The Third International Workshop on Inductive Logic Programming ILP '93*, Bled, Slovenia.
- 1993-present, Paper referee:
  - *Informatica* an International Journal of Computing and Informatica (1993-present)
  - *International Conference on Machine Learning (ICML)* (1994-present)
  - *European Conference on Artificial Intelligence (ECAI)* (1993-present)
  - *Workshop Proposal Review*, European Conference on Artificial Intelligence ECAI'96 (1996)

- *European Conference on Machine Learning* (1994-present)
- *Joint European Conference on Artificial Intelligence in Medicine and Medical Decision Making (AIMDM'99)*
- *International Journal of Human-Computer Interaction IJHCI* (1995)
- International Conference *AI '95* (1995)
- International Conference *JKAE '94* (1994)
- *The Fourth International Workshop on Inductive Logic Programming ILP '94* (1994)
- *Fifth International Workshop on Algorithmic Learning Theory ALT '94* (1994)
- *Fourth International Workshop on Analogical and Inductive Inference for Program Synthesis AII '94* (1994)
- International Conference *DEXA '93* (1993)
- European International Conference *Design to Manufacture in Modern Industry* (1993)

**Selected bibliography**


- Mladenić, D.: Text-learning and related intelligent agents. *IEEE EXPERT, Special Issue on Applications of Intelligent Information Retrieval*, July-August 1999.

- Joachims, T., Mladenić, D.: Browsing-Assistenten, Tour Guides und Adaptive WWW-Server. *Künstliche Intelligenz Journal*, Special Issue Intelligent Information Agents, (pp. 23-29), 1998.

- Sluga, A., Jermol, M., Zupanič, D., Mladenić, D.: Machine Learning approach to machinability analysis. *Computers in industry*, an international application oriented research journal, vol. 37, (pp. 185-196), 1998.

- Pilih, I.A., Mladenić, D., Prevec, T.S., Lavrač, N.: Data analysis of patients with severe head injury. Book chapter in *Intelligent Data Analysis in Medicine and Pharmacology*, (ur. Lavrač, Keravnou, Zupan), (pp. 131–148), Kluwer 1997.

- Mladenić, D., Solina, F.: Visualization in machine learning. *Electrotechnical review* Journal, 59:5, (pp. 308-313), 1992.

- Mladenic, D., Grobelnik, M.: Feature selection for unbalanced class distribution and Naive Bayes. *Proceedings of the 16th International Conference on Machine Learning ICML-99.* Morgan Kaufmann Publishers, San Francisco, CA, pp.258-267, 1999.

- Mladenic, D.: Machine learning for better Web browsing. *Proceedings of the Eight Electrotechnical and Computer Sc. Conference ERK'99*, Ljubljana, Slovenia: IEEE section, 1999.
  Also in *AAAI 2000 Spring Symposium Technical report on Adaptive User Interfaces*, 2000.

- Mladenic, D.: Turning Yahoo into an Automatic Web-Page Classifier. *Proceedings of the 13th European Conference on Aritficial Intelligence ECAI'98*, pp. 473-474, 1998.

- Mladenic, D., Grobelnik, M.: Feature selection for classification based on text hierarchy. *Working notes of Learning from Text and the Web, Conference on Automated Learning and Discovery CONALD-98*, 1998.

- Mladenić, D.: Feature subset selection in text-learning. *Proc. of the 10th European Conference on Machine Learning ECML98* (pp. 95-100), 1998.

- Bajd, T., Grobelnik, M., Mladenić, D., Lavrač, N., Prodnik, V., Benko, H., Šavrin, R., Obreza, P.: Machine learning for prediction of walking abilities in incomplete spinal cord injured patients, *Proc. of the conference Computer-Aided Data Analysis in Medicine CADAM-97* (pp. 18-25), 1997.

- Mladenić, D.: Automated model selection. *Proc. of the MLNet familiarisation workshop: Knowledge level modeling and machine learning, ECML 95* (13 pages), Heraklion, Crete, Greece 1995.

- Mladenić, D., Grobelnik, M., Bratko, I., Paul, R.J.: Classification tree chaining in data analysis. *Proc. of the IJCAI Workshop on Data Engineering for Inductive Learning* (10 pages). Montreal, Quebec, Canada 1995.

- Grobelnik, M., Mladenić, D., Zupanič, D., Žnidar, B.: Integrated system for encyclopaedia typesetting based on TEX. *Proceedings of the TEXusers group conference TUG94* (pp. 103-104). Santa Barbara, California 1994.

- Mladenić, D., Bratko, I., Paul, R.J., Grobelnik, M.: Using machine learning techniques to interpret results from discrete event simulation. *Proc. of the European Conference on Machine Learning ECML94* (pp. 399-402). Springer-Verlag 1994.

- Mladenić, D.: Combinatorial optimization in inductive concept learning. Proc. *Tenth International Conference on Machine Learning ICML-93* (pp. 205-211). San Mateo, CA: Morgan Kaufmann, 1993.

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