

Ion Alexandru Muslea

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Education

1996-2002: University of Southern California

- Ph.D. in Computer Science (December 2002)
- Thesis: *Active Learning with Multiple Views* (Co-advisors: Craig Knoblock & Steve Minton).

1994-1996: West Virginia University

- M.Sc. in Computer Science
- Thesis: *The very-offline k-server problem in trees* (Co-advisors: S. Kankanahalli & W. Klostermeyer).

1986-1991: Polytechnic Institute of Cluj-Napoca (Romania)

- B.Sc. in Computer Science
- Thesis: *An object-oriented approach to graphical user interfaces* (Advisor: I. Salomie).

Professional Experience

2002.12-present: University of California at Irvine

Associate Specialist: Within Professor Padhraic Smyth's group, I am working on entity-based data mining from spatio-temporal and text-based data streams.

1996.05-2002.12: Information Sciences Institute (University of Southern California)

Research Assistant: I worked on active, semi-supervised, and meta-learning techniques that were applied to information extraction, text classification, and discourse tree parsing. I was also actively involved in research projects on integrating heterogeneous information sources, and natural language processing.

1994.08 - 1996.05: Concurrent Engineering Research Center (West Virginia University)

Research Assistant: I worked on enabling technologies for distributed medical systems.

1993.12-1994.04: "Make A Difference in Romania" Foundation (Cluj-Napoca, Romania)

Research Associate: I developed a graphical environment for learning C++ programming techniques.

1993.07-1993.10: Symbolic Systems (Madison, New Jersey)

Research Associate: I conducted a comparative study of object-oriented graphical user interfaces.

1992.02-1994.07: Keysys Software (Cluj-Napoca, Romania)

Leader of the Multimedia Group that worked for the German partner FAST Multimedia GmbH. Involved in designing and developing a PC-based frame-grabber and video-mixer.

1991.08-1992.02: Computer Science Research Center (I.T.C. Cluj-Napoca, Romania)

Research Associate: I was involved in the design of a medical pattern-recognition system.

Teaching Experience

Spring 2002 - University of Southern California

Teaching Assistant for “Information Integration on the Web”. My duties involved designing and delivering several lectures, assisting in preparing and grading the homeworks and projects, and holding office hours.

Fall 1996 - University of Southern California

Guest lecturer in CSCI-102 - “Introduction to Object-Oriented Design”.

Summer 1996 - Information Sciences Institute (University of Southern California)

I presented a CORBA tutorial for the Intelligent Systems Division.

Summer 1993 - Symbolic Systems (Madison, New Jersey)

I offered lectures and tutorials on C++ and object-oriented design to several companies in New Jersey, USA.

1990-1992 - Transactions and Databases Company (Cluj-Napoca, Romania)

I offered lectures and tutorials on C++ and object-oriented design to several Romanian companies.

Fall 1992 - Technical University of Cluj-Napoca (Cluj-Napoca, Romania)

Teaching Assistant for the Computer Aided Design course.

Awards & Honors

- 2002 - Nominated by the University of Southern California for the “2003 ACM Doctoral Dissertation Award”
- 1999 - Two papers selected in the “*Best of Agents-99*” issue of *J. of Autonomous Agents and Multi-Agent Systems*
- 1999 - The “ACM Student Paper Award” at the 1999 Conference on Autonomous Agents
- 1998 - Information Sciences Institute’s “Meritorious Service Award”
- 1997 - Third place out of 32 teams at the Robocup-97 (synthetic agents track) with the ISIS team
- 1994 - “The People Technology Foundation (USA-Romania)” Award for Outstanding Research
- 1993 - The Frank Ponzio Foundation Scholarship (New Jersey, USA)
- 1992 - Winner of several prizes with the VideoMachine development team (“BYTE’s Best of Spring Comdex”, “BYTE Award of Distinction”, “Award of Master Corporate Video”)
- 1991 - Third place at “The National Computer Science Students Contest”(Timisoara, Romania)
- 1989 - Selected for “*The National Computer Science Outstanding Students Retreat*” (top 20 Romanian students)
- 1989 - Third place at “*The French Contest of the Polytechnic Institute of Cluj-Napoca*”
- 1989 - Second place at “The Romanian Computer Science Students Contest”
- 1988 - “The Best Paper Award” at the Romanian Students’ National Research Conference
- 1984 - First Place at “High-school Students Mathematics Contest”

Patents

- **Muslea, I.**, S. Minton, C. Knoblock. “Active Learning with Multiple Views”, pending
- **Muslea, I.**, S. Minton, C. Knoblock. “Wrapper Induction by Hierarchical Data Analysis”, pending

Professional Activities

- **Proposals reviewer**
 - National Science Foundation (2003)
 - Science Foundation Ireland (National Foundation for Excellence in Scientific Research, 2002)
- **Co-organizer**
 - IJCAI-2001 workshop on “*Adaptive Text Extraction and Mining*”
 - AAAI-1999 workshop on “*Machine Learning for Information Extraction*”
- **Program Committee**
 - International Conference on Machine Learning (*ICML-2003*)
 - KDD-2003 workshop on “*Web mining as a premise to effective and intelligent Web applications*”
 - ICML-03 workshop on “*The continuum from labeled to unlabeled data in machine learning and data mining*”
 - International Conference on Tools with Artificial Intelligence 2001
 - ECAI-2000 Workshop on “*Machine Learning For Information Extraction*”
 - Third Annual Genetic Programming Conference (*GP-98*)
- **Reviewer**
 - International Joint Conference on Artificial Intelligence (*IJCAI-2003*)
 - International Conference on Intelligent User Interfaces (*IUI-2003*)
 - International Joint Conference on Autonomous Agents and Multi-Agent Systems (*AAMAS-2003*)
 - International Conference on Intelligent User Interfaces (*IUI-2002*)
 - Machine Learning Journal, 2001
 - Computational Linguist, 2001
 - IJCAI-2001 Workshop on “Text Learning: Beyond Supervision”
 - Data & Knowledge Engineering Journal, 2000
- **Librarian** of the *RISE* repository of information extraction tasks (<http://www.isi.edu/~muslea/RISE>)

Research Grants and Contracts

Co-author of a \$780,291 AFOSR research contract on “Rapidly building high-performance information agents”. I wrote the technical part for active learning and information extraction. Dec 2000- Nov 2003.

Invited Presentations

- U.C. Berkeley, Center for Intelligent Systems seminar, April 2003
- NASA Ames, AI seminar, April 2003
- SRI International, AI seminar, April 2003
- PARC, AI seminar, February 2003
- U.C. Los Angeles, CS seminar, January 2003
- Stanford University, ISLE’s Computational Learning & Adaptation seminar, January 2003
- Lawrence Livermore National Laboratories, AI seminar, January 2003
- Jet Propulsion Laboratories, AI seminar, December 2002

- Overture Inc., AI seminar, December 2002
- Institute for Creative Technologies, December 2002
- Information Sciences Institute, A.I. seminar, November 2002
- U. of Toronto, ML seminar, November 2002
- U.C. San Diego, AI Seminar, November 2002
- U.C. Irvine, AI Seminar, September 2002
- Google Inc., November 2001
- U.C. San Diego, AI Seminar, October 2001

References

- Dr. Craig Knoblock** Senior Project Leader & Research Associate Professor
Information Sciences Institute of the University of Southern California, 4676 Admiralty Way, Marina del Rey, California 90292
(310) 448-8786; Fax: (310) 822-0751; *knoblock@isi.edu*
- Dr. Steve Minton** Chief Technology Officer & Co-Founder
Fetch Technologies, 4676 Admiral Way, Marina del Rey, California 90292
(310) 448-8275; Fax: (310) 822-0751; *minton@isi.edu*
- Dr. Paul Rosenbloom** Professor & Associate Director of the Information Sciences Institute
Information Sciences Institute of the University of Southern California, 4676 Admiralty Way, Marina del Rey, California 90292
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- Dr. Raymond Mooney** Professor
Dept. of Computer Sciences, University of Texas at Austin, Texas 78712-1188
(512) 471-9558; Fax: (512) 471-8885; *mooney@cs.utexas.edu*

Publications

• Books

- I. Muslea** (1994). C++ pentru avansati. Proiectarea aplicatiilor orientate pe obiecte (Advanced C++. Object-Oriented Software Design), MicroInformatica Press, Cluj-Napoca, 1994.
- I. Muslea** (1992). Initiere in C++ (An Introduction to C++), MicroInformatica Press, Cluj-Napoca, 1992.

• Book Chapter

- C. Knoblock, K. Lerman, S. Minton, **I. Muslea** (2002). "Accurately and reliably extracting data from the Web: a machine learning approach". In P. Szczepaniak, J. Segovia, J. Kacprzyk, L. Zadeh (eds.) *"Intelligent Exploration of the Web"*, p. 275-287, Springer, 2002.

• Journal Papers

- Muslea, I.**, S. Minton, C. Knoblock (2001). "Hierarchical wrapper induction for semi-structured information sources". *Journal of Autonomous Agents and Multi-Agent Systems*, 4:93-114, 2001.
- Marsella, S., J. Adibi, Y. Alonaizan, A. Erdem, G. Kaminka, **I. Muslea**, M. Tallis, M. Tambe (2001). "Experiences acquired in the design of Robocup teams: a comparison of two fielded teams". *Journal of Autonomous Agents and Multi-Agent Systems*, 4:115-129, 2001.
- Ambite, J.L., C. Knoblock, **I. Muslea**, A. Philpot (2001). "Compiling source descriptions for efficient and flexible information integration". *Journal of Intelligent Information Systems*, 16:149-187, 2001.
- Knoblock, C., S. Minton, J.L. Ambite, N. Ashish, **I. Muslea**, A. Philpot (2000). "The ARIADNE approach to Web-based information integration". *International Journal of Cooperative Information Systems*, 10(1-2): 145-169, 2000.
- Tambe, M., J. Adibi, Y. Alonaizan, A. Erdem, G. Kaminka, **I. Muslea** (1999). "Building agent teams using an explicit teamwork model and learning". *Artificial Intelligence Journal*, 110(2):215-239, 1999.

• Conference Papers

- Muslea, I.**, S. Minton, C. Knoblock. "Learning with strong and weak views," accepted at *IJCAI-2003*
- Muslea, I.**, S. Minton, C. Knoblock. "Active + Semi-Supervised Learning = Robust Multi-View Learning", *Proceedings of the 19th International Conference on Machine Learning ICML-2002*, p. 435-442, 2002.
- Muslea, I.**, S. Minton, C. Knoblock. "Adaptive View Validation: A First Step Towards Automatic View Detection", *Proceedings of the International Conference on Machine Learning ICML-2002*, p. 443-450, 2002.
- Muslea, I.**, S. Minton, C. Knoblock (2000). "Selective sampling with redundant views". *Proceedings of the Seventeenth National Conference on Artificial Intelligence AAAI-2000*, p. 621-626, 2000.
- Barish, G., Y. Chen, D. DiPasquo, C. Knoblock, S. Minton, **I. Muslea**, C. Shahabi (2000). "TheaterLoc: using information integration technology to rapidly build virtual applications". *Proceedings of International Conference on Data Engineering ICDE 2000*, p. 681-682, 2000.
- Muslea, I.**, S. Minton, C. Knoblock (1999). "A hierarchical approach to wrapper induction". *Proceedings of the Third Conference on Autonomous Agents AA-99*, p. 190-197, 1999.
- Tambe, M., G. Kaminka, S. Marsella, **I. Muslea**, T. Raines (1999). "Two fielded teams and two experts: a Robocup response challenge from the trenches". *Proceedings of the International Joint Conference on Artificial Intelligence, IJCAI'99*, p. 276-281, 1999.
- Marsella, S., J. Adibi, Y. Alonaizan, A. Erdem, G. Kaminka, **I. Muslea**, M. Tallis, M. Tambe (1999). "On being a teammate: experiences acquired in the design of Robocup teams", *Proceedings of the Third Autonomous Agents Conference AA-99*, p. 221-227, 1999.
- Knoblock, C., S. Minton, J. L. Ambite, N. Ashish, P. Modi, **I. Muslea**, A. Philpot, S. Tejada (1998). "Modeling Web sources for information integration". *Proceedings of the Fifteenth National Conference on Artificial Intelligence AAAI-1998*, p. 211-218, 1998.
- Tambe, M., J. Adibi, Y. Alonaizan, A. Erdem, G. Kaminka, S. Marsella, **I. Muslea**, M. Tallis (1998). "ISIS: using an explicit model of teamwork in Robocup'97". *Proceedings of the First Robot World Cup Competition and Conferences*, p. 123-131, 1998.
- Muslea, I.** (1997). "SYNERGY: a linear planner based on genetic programming". *Proceedings of the Fourth European Conference on Planning ECP-97*, p. 312-324, 1997.
- Muslea, I.** (1997). "The very-offline k -vehicle routing problem in trees". *Proceedings of the XVII International Conference of the Chilean Computer Science Society*, p. 155-163, 1997.

• Magazine Papers

Knoblock, C., K. Lerman, S. Minton, **I. Muslea** (2001). "Accurately and reliably extracting data from the Web: a machine learning approach". *IEEE Data Engineering Bulletin*, 2001

Tambe, M., J. Adibi, Y. Alonaizan, A. Erdem, G. Kaminka, S. Marsella, **I. Muslea**, M. Tallis (1998). "ISIS: an explicit model of teamwork at RoboCup-97", *AI Magazine*, 19(3):56, 1998.

• Refereed Workshops

Knoblock, C., K. Lerman, S. Minton, **I. Muslea** (2001). "A machine learning approach to accurately and reliably extracting data from the Web". *IJCAI-01 Workshop on "Adaptive Text Extraction and Mining"*, 2001.

Muslea, I., S. Minton, C. Knoblock (2001). "Selective sampling + semi-supervised learning = robust multi-view learning". *IJCAI-01 Workshop on "Text Learning: Beyond Supervision"*, 2001.

Muslea, I., S. Minton, C. Knoblock (2001). "Active learning compensates for domain clumpiness", *The Snowbird Workshop on Learning*, 2001.

Muslea, I., S. Minton, C. Knoblock (2000). "Naive Co-Testing for wrapper induction: preliminary results", *ECAI-2000 workshop on "Machine Learning for Information Extraction"*, 2000.

Muslea, I., S. Minton, C. Knoblock (2000). "Selective sampling with Co-Testing". *The CRM Workshop on "Combining and Selecting Multiple Models"* (Montreal, Canada), 2000.

Muslea, I. (1999). "Extraction patterns for information extraction tasks: a survey". *AAAI-99 Workshop on "Machine Learning for Information Extraction"*, 1999.

Muslea, I., S. Minton, C. Knoblock (1998). "Wrapper induction for semi-structured, Web-based information sources". *Proceedings of the Conference on Automatic Learning and Discovery*, Pittsburgh, PA, 1998.

Muslea, I., S. Minton, C. Knoblock (1998). "STALKER: learning extraction rules for semistructured, Web-based information sources", *AAAI-98 Workshop on "AI for Information Integration"*, 1998.

Ambite, J.L., N. Ashish, C. Knoblock, S. Minton, P. Modi, **I. Muslea**, A. Philpot, S. Tejada (1998). "ARIADNE: a system for constructing mediators for Internet sources". System Demonstration. *Proceedings of the ACM SIGMOD Conference on Management of Data*, 1998.

Muslea, I., R. Jain, A. Suvaiala, S. Kankanahalli (1995). "RAMSES: a distributed name server system". *Proceedings of the International Workshop on "Intelligent Computer Communication"*, p. 216-220, 1995.

• Selected Articles From the Romanian Popular Media (over 25 articles between 1991 and 1997)

Muslea, I. (1997). "Gooooooooooooo! A report from the agents' soccer competition.", *BYTE-Romania*, 8, 1997.

Muslea, I. (1996). "From Hollywood to AAI-96", *BYTE-Romania*, 9, 1996.

Muslea, I. (1996). "The Clark Tax Mechanism", *BYTE-Romania*, 1, 1996.

Muslea, I. (1995). "Distributed intelligent agents", *BYTE-Romania*, 4, 1995.

Muslea, I. (1995). "Studying computer science in America", *Open-TI*, 1, 1995.

Muslea, I. (1994). "Name Services", *Open-TI*, 4, 1994.

Muslea, I. (1994). "CORBA", *Open-TI*, 3, 1994.

Muslea, I. (1993). "C and C++ vs. C or C++", *PC-Report*, 1, 1993.

Muslea, I. (1992). "Another future of the programming languages", *PC-Report*, 6, 1992.

Muslea, I. (1991). "Using PROLOG in GO situation analyses", *PC-Magazin*, 2-3, 1991.

- **In progress**

Muslea, I. “Active learning with multiple views,” to be submitted to *Journal of Artificial Intelligence Research*

Muslea, I. “Multi-view learning: coping with the unrealistic assumptions,” to be submitted to *Journal of Artificial Intelligence Research*