

Jody J. Daniels

Department of Computer Science
University of Massachusetts
Amherst, MA 01003-4610
(413) 545-1985 FAX: (413) 545-1249

185 Rocky Hill Road
Hadley, MA 01035
(413) 549-7568

daniels@cs.umass.edu
<http://cbr-www.cs.umass.edu/~daniels>

Research Interests

Information Retrieval: Passage Retrieval, Relevance Feedback;
Artificial Intelligence: Information Extraction, Case-Based Reasoning, Machine Learning, Human-Computer Interfaces.

Education

- Since 9/90 **University of Massachusetts at Amherst**
Ph.D., Computer Science [Expected Spring 1997]
Dissertation Title: Retrieval of Passages for Information Reduction, Committee: Edwina L. Rissland (chair), Nicholas J. Belkin, James Callan, W. Bruce Croft, and Ethan Katsh.
- May 1993 **University of Massachusetts at Amherst**
M.S., Computer and Information Science
- May 1983 **Carnegie Mellon University**
B.S., Applied Mathematics (Computer Science)

Professional Experience

- Since 9/90 **Research Assistant**, Case-Based Reasoning Laboratory, University of Massachusetts
Directed by Edwina L. Rissland.
Areas of research include: Integration of case-based reasoning with information retrieval techniques, passage retrieval, relevance feedback, information filtering, and lattice construction.
- 6/91-9/91 **Summer Internship**, Advanced Technologies Laboratory, General Electric, Cherry Hill, NJ
Software development to support an intent recognition and situation assessment system for submarines.
- 2/89-8/90 **Artificial Intelligence Project Officer**, Studies and Analysis Activity, Falls Church, VA
Software development in support of operational Signals Intelligence and Electronic Warfare and operational countermeasures systems.
- 4/87-6/88 **Company Commander**, Headquarters & Service Company, 524th MI Battalion, Seoul, Korea
Responsible for the health, welfare, training, and discipline of a 100+ person unit.
- 2/84-5/86 **Artificial Intelligence Project Officer**, Army Intelligence Center and School, Ft. Huachuca, AZ
Designed, implemented, and documented expert and knowledge-based systems to support tactical intelligence gathering and analysis. Reviewed and tested contractor-developed software for usability.

Refereed Publications

- “Finding Legally Relevant Passages in Case Opinions.” J. J. Daniels and E. L. Rissland. Sixth International Conference on Artificial Intelligence and Law. July 1997. To appear.
- “What you saw is what you want: Using Cases to seed Information Retrieval.” J. J. Daniels and E. L. Rissland. Second International Conference on Case-Based Reasoning. July 1997. To appear.
- “The Synergistic Application of CBR to IR.” E. L. Rissland and J. J. Daniels. In *Artificial Intelligence Review: Special Issue on the Use of AI in Information Retrieval*. 10:441–475, 1996.
- “Using CBR to Drive IR.” E. L. Rissland and J. J. Daniels. In *Proceedings, 14th International Joint Conference on Artificial Intelligence*, August 1995.
- “A Case-Based Approach to Intelligent Information Retrieval.” J. J. Daniels and E. L. Rissland. In *Proceedings, 18th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, July 1995.
- “A Hybrid CBR-IR Approach to Legal Information Retrieval.” E. L. Rissland and J. J. Daniels. In *Proceedings, 5th International Conference on Artificial Intelligence and Law*, May 1995.
- “Case-Based Diagnostic Analysis in a Blackboard Architecture.” E. L. Rissland, J. J. Daniels, Z. B. Rubinstein, and D. B. Skalak. In *Proceedings, 11th National Conference on Artificial Intelligence*, August 1993.
- “Diagnostic Case Retrieval Guided by Evaluation and Feedback.” E. Rissland, J. Daniels, Z. Rubinstein, and D. Skalak. In *Proceedings of the CBR Workshop at the 11th National Conference on Artificial Intelligence, Technical Report WS-93-01*, August 1993.
- “A Blackboard-based Architecture for CBR: An Initial Report.” E. Rissland, C. Basu, J. Daniels, J. McCarthy, Z. Rubinstein, and D. Skalak. In *Proceedings: Case-Based Reasoning Workshop*, May 1991.

Other Publications

- “Integrating IR and CBR to Locate Relevant Texts and Passages.” J. J. Daniels and E. L. Rissland. 8th International Conference and Workshop on Database and Expert Systems Applications, Workshop on Legal Systems. September 1997. To appear.
- “Selection of Passages for Information Reduction.” Jody J. Daniels. In *Proceedings, 13th National Conference on Artificial Intelligence*, Doctoral Consortium, August 1996.
- “Retrieval of Passages for Information Reduction.” Jody J. Daniels. Ph.D. Proposal, University of Massachusetts at Amherst, April 1996. (Also UMass Technical Report 96-41.)
- “A Synergistic Application of CBR to IR.” Edwina L. Rissland and Jody J. Daniels. Computer Science Department Technical Report 95-47, University of Massachusetts at Amherst.
- “Integrating Information Retrieval into Case-Based Reasoning: Breaking the 1000 Case Barrier.” Jody J. Daniels. Masters thesis, University of Massachusetts at Amherst, August 1993.

Teaching Experience

- Since 5/96 **Director of Enlisted Courses**, 6th Battalion (Military Intelligence)/98th Regiment, Devens, MA. Supervise 25+ Course Managers and Instructors in the the conduct of 12 Military Intelligence courses.
- 1/95-5/95 **Teaching Assistant**, University of Massachusetts. Taught introductory course in Pascal programming. Prepared and gave twice-weekly lectures. Graded homeworks, programs, and exams.
- 4/95-8/96 **Course Manager**, 1st Reserve Forces Intelligence School, Ft. Devens, MA. Managed Instructors and taught 43-hour course on Electronic Warfare to military officers. Taught 40-hour Instructor Training Course.

Professional Affiliations

- American Association for Artificial Intelligence
- American Women in Science
- Association for Computing Machinery

Invited Talks

- Apr 1996 CIIR Industrial Advisory Board Meeting, Amherst, MA.
- Apr 1996 Westfield State College, Westfield, MA.
- Aug 1995 IJCAI, Montreal, Canada.
- July 1995 SIGIR, Seattle, WA.
- May 1995 ICAIL, College Park, MD.
- Sept 1994 CIIR Industrial Advisory Board Meeting, Amherst, MA.

Service

Journal Referee, Information Processing and Management, 1995.

Volunteer Scientist, Science by Mail, Boston Museum of Science, Correspond with five groups of students in 4th through 9th grades as they complete scientific experiments. Since Sept 1994.

Graduate Student Representative to the Faculty, Elected position, Dept. of Computer Science, UMass. Sept 1992–Sept 1993.

Comprehensive Exam Revision Committee, Elected position, Dept. of Computer Science, UMass. Oct 1992–Feb 1994.

New Student Committee, Elected position, Dept. of Computer Science, UMass. Sept 1991–Sept 1992.

Referee, High school varsity, junior varsity, and youth league soccer, both girls and boys. Since June 1989.

Equipment Manager, UMass Outing Club equipment locker. Winter and summer breaks. Since June 1994.

References

Professor Edwina L. Rissland
 Department of Computer Science
 University of Massachusetts
 Amherst, MA 01003-4610
 (413) 545-3639
 rissland@cs.umass.edu

Professor W. Bruce Croft
 Department of Computer Science
 University of Massachusetts
 Amherst, MA 01003-4610
 (413) 545-0463
 croft@cs.umass.edu

Professor James Callan
 Department of Computer Science
 University of Massachusetts
 Amherst, MA 01003-4610
 (413) 545-4878
 callan@cs.umass.edu

Professor Nicholas J. Belkin
 SCILS
 Rutgers University
 New Brunswick, NJ 08901-1071
 (908) 932-8585
 nick@belkin.rutgers.edu

Teaching References

Professor Robert Moll
Department of Computer Science
University of Massachusetts
Amherst, MA 01003-4610
(413) 545-4315
moll@cs.umass.edu

LtCol Robert Pelletier
6th Bn (MI)/98th Regt
Director of Instruction
B 3 Wade Farm
Newmarket, NH 03857
(603) 431-1256
