

Monica Rogati

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RESEARCH INTERESTS: **Large-scale applied text mining and data mining**, including domain-specific applications, multi-lingual information access and organization, evaluation design, statistical methods for text processing, text classification, finance and medical applications, applied machine learning, statistical natural language processing, information retrieval, event detection and tracking, machine translation.

EDUCATION: **PhD in Computer Science**, Carnegie Mellon University, April 2008
Advisors: Yiming Yang and Jaime Carbonell
Thesis: Domain Adaptation of Translation Models for Multilingual Applications

MS in Computer Science, Carnegie Mellon University, May 2003

BS *summa cum laude* in Computer Science, University of New Mexico, 2000
GPA: 4.0/4.0 GRE: 2260/2400 general, 93 percentile Computer Science.
Minors in Computer Engineering and French. First in class (university-wide).

EXPERIENCE **Research Consultant and Owner**, Perplex SRL, Romania (2006-2007)
Sub-contracted projects for the CMU GALE Distillation group (details below)

Graduate Research Assistant, Carnegie Mellon (2000-2006)
Computer Science Department

Examined **feature selection for text classification** and **cross-lingual information retrieval** using parallel corpora, including full system implementation. Participated in CLEF 2001 and 2003 system competitions.

Supervised two undergraduates working on **web mining** for CLIR resources. Supervised an MS student working on **Named Entities for Topic-Conditioned Event Tracking**.

Thesis work on **domain adaptation of translation models**, as applied to Cross-Language Information Retrieval, Topic Conditioned Event Tracking and Machine Translation.

Crucial role in the CMU **GALE Distillation** group: proposal writing with advisors, end-to-end system design and specification, multi-site coordinator (CMU, UPitt, IBM), user study coordination and design with UPitt, evaluation dataset design.

Advisors: Yiming Yang and Jaime Carbonell.

Teaching Assistant, Carnegie Mellon (2002, 2005)
Computer Science Department & Language Technologies Institute

Held weekly recitation section for Data Structures and Algorithms in Java. **Grading, lecturing** (150+ class), designing exam questions, **designing and testing assignments**. Professors Daniel Sleator and William Scherlis.

Class: **graduate level Information Retrieval**. Professors Jamie Callan and Yiming Yang.

Research Intern, IBM TJ Watson Research (2002,2005)
Unsupervised learning for Arabic stemming (with Scott McCarley). Published: ACL'03.
Domain adaptation for Topic Detection and Tracking (with Xiaoqiang Luo)

Research Intern, AT&T Research Labs (2000)

Crucial role in improving the DARPA Communicator by treating sentence planning as a stochastic learning problem (with Marilyn Walker and Owen Rambow). Published: NAACL'01, ACL'01.

Research Assistant, UNM Computer Science Department (1999-2000)

Designed a disambiguation program for **natural language**, using a context-sensitive deformable semantic network - in retrospect, a naïve rediscovery of language modeling. Advisor George Luger

Hidden unit modulation by attention focus in **neural networks**. Advisor: Barak Pearlmutter.

Teaching Assistant, UNM Computer Science Department (1997, 1998)

Held a weekly recitation section for a Non-Imperative programming (**Scheme**) class. Grading, lecturing, holding office hours and assisting with exam questions. Developed an **automatic grader program** to evaluate student projects. Professor: Barak Pearlmutter.

Held a weekly recitation section for a C++ Computer Science class.

Software Developer, UNM Computer Science Department (1998)

Leader of a small team in charge of developing a **web-based grade database** (SQL, C++) to be used for several courses in the Computer Science Department, later used by the three largest classes in the department.

Logic Design Assistant, UNM Microelectronics Research Center (1996-1999)

Developed small logic design projects, including a packetizing chip **software simulation** and a multiplexer usage **optimization** for multiple outputs boolean functions; disassembled and redesigned a **microcontroller test bench**. Student assignment evaluation for a logic design class.

SELECTED PUBLICATIONS

A comprehensive list of publications can be found at www.rogati.com

CMU GALE effort: Yiming Yang, Abhimanyu Lad, Ni Lao, Abhay Harpale, Bryan Kisiel, Monica Rogati, Peter Brusilovksy, Daqing He *Utility-based Information Distillation Over Temporally Sequenced Documents* (SIGIR 2007)

Monica Rogati and Yiming Yang. *Resource Selection for Domain Specific Cross-Lingual IR* (SIGIR 2004).

Monica Rogati, Scott McCarley and Yiming Yang. *Unsupervised Learning of Arabic Stemming* (ACL 2003).

Owen Rambow, Monica Rogati and Marilyn A. Walker. *Evaluating a Trainable Sentence Planner for a Spoken Dialogue Travel System* (ACL 2001).

SELECTED AWARDS & SCHOLARSHIPS

Outstanding Junior of the Year

Outstanding Senior of the Year

CRA Outstanding Undergraduate 2000 Honorable Mention

UNM university-wide commencement speaker (first in class)

Regional ACM programming contest: 1st place in 1997, 2nd place in 1998

Microelectronics Research Center Full undergraduate scholarship + expenses, 4 years