Nazli Goharian, Ph.D.

Information Retrieval Lab
Dept. of Computer Science
Georgetown University
Washington, DC 20057
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Areas of Interest

Information Retrieval, Text Mining, Natural Language Processing, Health/ Medical Search & Mining

Education

Ph.D. in Computer Science	Florida Institute of Technology	July 2001
M.Sc. in Computer Science	George Mason University	May 1995
B.Sc. in Computer Science	Dortmund University	May 1992

Employment

STIA Affiliated Faculty (SFS, Georgetown)   2016 - Present

Clinical Professor of Computer Science   Aug. 2013 - Present
Clinical Associate Professor   Jan. 2010 – July 2013
  Department of Computer Science
  Georgetown University
  Washington, DC

Clinical Associate Professor   Aug. 2006 – Dec. 2009
Clinical Assistant Professor   Aug. 2001 – July 2006
Senior Lecturer   Aug. 2000 – July 2001
  Department of Computer Science
  Illinois Institute of Technology
  Chicago, Illinois

Project Manager & Technical Lead of Data Warehouse   Mar. 1999 – Aug. 2000
  MCI WorldCom Conferencing
  Chicago, Illinois

Instructor   Aug. 1997 – Dec. 1998
  Department of Computer Science
  Florida Institute of Technology
  Melbourne, Florida

Software Engineer   May 1995 – Jan. 1997
  Unisys Corporation
  Reston, Virginia

Software Engineer   Dec. 1993 – Mar. 1995
  XPAND Corporation
  Reston, Virginia

Software Engineer   Dec. 1992 – Dec. 1993
  Telemarc, Inc.
  Fairfax, Virginia

Honors & Recognitions
- **Area Chair Favorite Paper** recognition, COLING 2018
- **Best Long Paper Award,** EMNLP 2017
- **Best poster award,** Biomedical Informatics Symposium, Georgetown, 2018
- **Best poster award,** Biomedical Informatics Symposium, Georgetown, 2012
- **Illinois Institute of Technology's Julia Beveridge Award (Female Faculty of the Year)**, 2009
- **Teacher of the Year Award**, Computer Science Department, Illinois Institute of Technology, 2007
- **Dean's Excellence Award in Teaching**, College of Science and Letters, Illinois Institute of Technology, 2005
- **Teacher of the Year Award**, Computer Science Department, Illinois Institute of Technology, 2003
- **Teacher of the Year Award**, Computer Science Department, Illinois Institute of Technology, 2002

Funding
- "Artificial Intelligence in Search and Mining of Big Data" $22,999
  The Italian National Research Council (CNR) – (PI)
- **Adobe Research Gift** (2019**)** $5,000
- **Adobe Research Gift** (2018-2019**)** $7,000
- **Georgetown Infrastructure Grant -** Co-PI (total 2 participants) – NLP (awarded 2017) $20,000
- **Adobe Research Gift** (2017-2018**)** $10,000
- "Health Surveillance: Detecting Health Trends via Social Media"
  NSF-supplement Research Experiences for Undergraduates Supplement (PI), $8,000
- Supplement to Award# IIP-1362046, (2014 – 2019)
- "Infrastructure for Change: From a Teaching Department to National Prominence" $460,000
  NSF Award # CNS-1204347, Co-PI. (2012-2015)
- "Biomedical Literature Search" $28,763
  IIT Research Institute, Principle Investigator (PI). (2005-2006)
- "CRCD/EI: An Undergraduate CS Specialization in Knowledge Management Systems" $281,999
  NSF Award, Total of 5 participants, Co-PI. (2004-2007)
- "Enhancing the CS Undergraduate Curriculum to Include Data Mining and Information Retrieval" $339,500
  NSF Award # 0119469, Total of 4 participants, Co-PI. (2001-2005)

Thesis Supervision

PhD Thesis
- Sean MacAvaney [co-advisor, May **2021,** GU], *Effective Neural Ranking.*
- Arman Cohan [May **2018,** GU], *Text Summarization and Categorization for Scientific and Health-Related Data.* **Selected as The 2018 Exceptional PhD Student in Science at Georgetown University; Recipient of the 2019 Harold N. Glassman Distinguished Dissertation Award in the Sciences** (Research Scientist at Allen Institute for Artificial Intelligence).
- Luca Soldaini [May **2018,** GU], *The Knowledge and Language Gap in Medical Information Seeking*. (Applied Scientist at Amazon Alexa Search).
- Andrew Yates [co-advisor, May **2016**, GU], *Identifying Real World Concepts in Social Media.* (Senior Scientist at Max Planck Institute for Informatics, Germany).
- Saket Mengle [Dec. **2010**, IIT], *Categorizing Text and Detecting Passages and Category Relationships.* (Director of Data Science, Dataxu, Boston).

Master Thesis
- Ziling Fan, [Graduated **2018**, GU], *Relation Extraction for Protein-Protein Interaction Affected by Mutations*
- Ankit Jain, [Graduated **2003**, IIT], *Parallel Implementation of a Sparse Matrix Information Retrieval System;* **IIT Distinguished Master's Thesis Award.** Represented IIT at The 2004 Midwestern Association of Graduate Schools (MAGS) competition.

Undergraduate Thesis
- Marc Connell [May **2017**, GU], *Using Tweet Hashtags and Retweets to Detect Opinion Polarization on Genetically Modified Organisms* (STIA Honors Thesis)

Patent Filled
- Systems and methods for identifying critical errors that can be used for targeted radiology resident training, Pending application number 15/410,850, filed January 20, 2017.

Selected Refereed Publications
(Publications can be downloaded from IR Lab site (http://ir.cs.georgetown.edu/publications)

2020

1. Sean MacAvaney, Franco Maria Nardini, Raffaele Perego, Nicola Tonellotto, Nazli Goharian, Ophir Frieder, "Efficient Document Re-Ranking for Transformers by Precomputing Term Representations", SIGIR (July 2020)

2. Sean MacAvaney, Franco Maria Nardini, Raffaele Perego, Nicola Tonellotto, Nazli Goharian, Ophir Frieder, "Training Curricula for Open Domain Answer Re-Ranking", SIGIR (July 2020)

3. Sean MacAvaney, Franco Maria Nardini, Raffaele Perego, Nicola Tonellotto, Nazli Goharian, Ophir Frieder, "Expansion via Prediction of Importance with Contextualization", SIGIR (July 2020) (short)

4. Sajad Sotudeh, Nazli Goharian, Ross W. Filice, "Attend to Medical Ontologies: Content Selection for Clinical Abstractive Summarization", ACL (July 2020). (short)

5. Sean MacAvaney, Luca Soldaini, and Nazli Goharian, "Teaching a New Dog Old Tricks: Resurrecting Multilingual Retrieval Using Zero-shot Learning", European Conference on Information Retrieval (ECIR) 2020.

6. Sean MacAvaney, Arman Cohan, Nazli Goharian, and Ross Filice, "Ranking Significant Discrepancies in Clinical Reports", European Conference on Information Retrieval (ECIR) 2020

2019

7. Sean MacAvaney, Hao-Ren Yao, Eugene Yang, Katina Russell, Nazli Goharian, and Ophir Frieder, "Hate speech detection: Challenges and solutions", PLoS ONE, Aug 2019.

8. Sean MacAvaney, Andrew Yates, Arman Cohan, and Nazli Goharian, "CEDR: Contextualized Ebmeddings for Document Ranking", SIGIR 2019. (short)

9. Sean MacAvaney*, Sajad Sotudeh Gharebagh*, Arman Cohan, Nazli Goharian, Ross Filice, and Ish Talati, "Ontology-Aware Clinical Abstractive Summarization", SIGIR 2019. *Equal contribution (short);

2018

10. Sean MacAvaney, Andrew Yates, Arman Cohan, Luca Soldaini, Kui Hui, Nazli Goharian, Ophir Frieder, "Overcoming Low-Utility Facets for Complex Answer Retrieval", Information Retrieval Journal, Special Issue on Knowledge Graphs and Semantics in Text Analysis and Retrieval, 2018

11. Arman Cohan, Nazli. Goharian, "Scientific Document Summarization via Citation Contextualization and Scientific Discourse", International Journal on Digital Libraries, Special Issue on Bibliometric-Enhanced Information Retrieval and Natural Language Processing, Springer. (online publication: May 2017; Print: Volume 19, Issue 2-3, September 2018).

12. Ziling Fan, Arman Cohan, Luca Soldaini, Nazli Goharian, "Relation Extraction for Protein-protein Interactions Affected by Mutations", The 9th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB), 2018.

13. Arman Cohan*, Bart Desmet*, Andrew Yates*, Luca Soldaini, Sean MacAvaney and Nazli Goharian, SMHD: a Large-Scale Resource for Exploring Online Language Usage for Multiple Mental Health Conditions., COLING 2018, *Equal contribution. Nominated for best paper; selected as **"Area Chair Favorite".**

14. Sean MacAvaney, Andrew Yates, Arman Cohan, Luca Soldaini, Kai Hui, Nazli Goharian, and Ophir Frieder "Characterizing Question Facets for Complex Answer Retrieval.", SIGIR 2018.

15. Arman Cohan, Franck Dernoncourt, Doo Soon Kim, Trung Bui, Seokhwan Kim, Walter Chang, and Nazli Goharian, "A Discourse-Aware Attention Model for Abstractive Summarization of Long Documents" , NAACL-HLT 2018.

16. Luca Soldaini, Timothy Walsh, Arman Cohan, Julien Han, and Nazli Goharian," Helping or Hurting? Predicting Changes in Users' Risk of Self-Harm Through Online Community Interactions", CLPsych 2018.

17. Sean MacAvaney, Bart Desmet, Arman Cohan, Luca Soldaini, Andrew Yates, Ayah Zirikly, and Nazli Goharian," RSDD-Time: Temporal Annotation of Self-Reported Mental Health Diagnoses..", CLPsych 2018.

18. Sean MacAvaney, Luca Soldaini, Arman Cohan, and Nazli Goharian , "Tree-LSTMs for Scientific Relation Classification.",SemEval 2018

2017

19. Andrew Yates*, Arman Cohan*, Nazli Goharian, "Depression and Self-Harm Risk Assessment in Online Forums", Conference on Empirical Methods in Natural Language Processing (EMNLP), Sept 2017. **EMNLP'17 Best Long Paper Award**.   *Equal contribution

20. Luca Soldaini, Andrew Yates, Nazli Goharian,"Denoising Clinical Notes for Medical Literature Retrieval with Convolutional Neural Model", 26th ACM International Conference on Information and Knowledge Management (CIKM 2017). Nov 2017, (short).

21. Luca Soldaini, Nazli Goharian, Andrew Yates, "Learning to Reformulate Long Queries for Clinical Decision Support", Journal of the Association for Information Science and Technology (JASIST) Special Issue on Biomedical Information Retrieval, DOI: 10.1002/asi.23924, Sept 2017.

22. Arman Cohan, Sydney Young, Andrew Yates, and Nazli Goharian, "Triaging Content Severity in Online Mental-Health Forums", Journal of the Association for Information Science and Technology (JASIST) Special Issue on Biomedical Information Retrieval, DOI:10.1002/asi.23865, Sept 2017.

23. Arman Cohan, Allen Fong, Raj Ratwani, Nazli Goharian, "Identifying Harm Events in Clinical Care through Medical Narratives", The 8th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB), Aug 2017.

24. Arman Cohan, and Nazli Goharian, "Contextualizing Citations for Scientific Summarization using Word Embeddings and Domain Knowledge", ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2017), Aug 2017. (short).

25. Sean MacAvaney, Arman Cohan, and Nazli Goharian "A Framework for Cross-Domain Clinical Temporal Information Extraction", International Workshop on Semantic Evaluation (SemEval 2017), Aug 2017.

26. Arman Cohan, Alen Fong, Nazli Goharian, and Raj Ratwani. "A Neural Attention Model for Categorizing Patient Safety Events", In Proceedings of the 39th European Conference on Information Retrieval (ECIR '17), April 2017. (short).

27. Luca Soldaini and Nazli Goharian, "Learning to Rank for Consumer Health Search: a Semantic Approach", In Proceedings of the 39th European Conference on Information Retrieval (ECIR '17), April 2017. (short).

2016

28. L. Soldaini and N. Goharian, QuickUMLS: a fast, unsupervised approach for medical concept extraction, In Proceedings of the Medical Information Retrieval (MedIR) workshop at SIGIR 2016, July 2016.

29. A. Cohan, K. Meurer, N. Goharian, "Temporal Information Processing for Clinical Narratives", NAACL HLT 10th international workshop on semantic evaluation Semantic Analysis: Clinical TempEval (SemEval'16), June 2016.

30. A. Cohan, S. Young, N. Goharian, "Triaging Mental Health Forum Posts", NAACL HLT 3rd Computational Linguistics and Clinical Psychology - From Linguistic Signal to Clinical Reality Workshop (CLPsych'16), June 2016.

31. A. Cohan and N. Goharian, "Revisiting Summarization Evaluation for Scientific Articles", In Proceedings of the 11th International Conference on Language Resources and Evaluation (LREC'16), May 2016.

32. A.Yates, A. Kolcz, N. Goharian and O. Frieder, "Effects of Sampling on Twitter Trend Detection", In Proceedings of the 11th International Conference on Language Resources and Evaluation (LREC'16), May 2016.

33. A. Yates, J. Joselow, N. Goharian, "The news cycle's influence on social media activity", International AAAI Conference on Web and Social Media (ICWSM), May 2016. (short)

34. A. Yates, N. Goharian, O. Frieder, "Learning the relationships between drug, symptom, and medical condition mentions in social media", International AAAI Conference on Web and Social Media (ICWSM). May 2016. (short)

35. A. Cohan, L. Soldaini, N. Goharian, A. Fong, R. Filice, R. Ratwani, "Identifying Significance of Discrepancies in Radiology Reports", SIAM International Conference on Data Mining (SDM) Workshop on data Mining for Medicine and Healthcare, May 2016.

2015

36. A. Cohan, and N. Goharian ," Scientific Article Summarization Using Citation-Context and Article's Discourse Structure", Empirical Methods in Natural Language Processing (EMNLP '15), 2015.

37. L. Soldaini, A. Yates, E. Yom-Tov, O. Frieder, and N. Goharian,"Enhancing web search in the medical domain via query clarification,"Information Retrieval Journal, July 2015, doi:10.1007/s10791-015-9258y.

38. A. Cohan, L. Soldaini, N. Goharian, "Matching Citation Text and Cited Spans in Biomedical Literature: a Search-Oriented Approach" North American Chapter of the Association for Computational Linguistics – Human Language Technologies (NAACL HLT 2015). (short)

39. L. Soldaini, A. Cohan, A. Yates, N. Goharian, O. Frieder, "Retrieving Medical Literature for Clinical Decision Support", 37th European Conference on Information Retrieval (ECIR 2015), 2015.

40. A. Yates, N. Goharian, O. Frieder, "Extracting Adverse Drug Reactions from Social Media", Proceedings of the Twenty-Ninth AAAI Conference on Artificial Intelligence (AAAI-15), 2015.

41. J. Parker, A. Yates, N. Goharian, and O. Frieder, "Health Related Hypothesis Generation using Social Media Data," Journal of *Social Network Analysis and Mining,* Springer, 2015.

2014

42. A. Cohan, L. Soldaini, A. Yates, N. Goharian, O. Frieder, "On Clinical Decision Support System", 5th ACM conference on Bioinformatics, Computational Biology, and Health Informatics, 2014. (short paper)

43. A. Yates, J. Parker, N. Goharian, and O. Frieder, " A Framework for Public Health Surveillance", In Proceedings of the Ninth International Conference on Language Resources and Evaluation (LREC'14), May 2014.

44. A. Yates, N. Goharian, O. Frieder, "Relevance-Ranked Domain-Specific Synonym Discovery", in *36th European Conference on Information Retrieval (ECIR),* April 2014.

2013

45. A. Yates, N. Goharian, W. Yee, " Semi-supervised Sentiment Analysis: Merging Labeled Sentences with Unlabeled Reviews to Identify Sentiment", American Society for Information Science and Technology (ASIST), Nov. 2013.

46. E. W. Burger, H. Federoff, O. Frieder, N. Goharian, A. Yates, "Social Media Communications Networks and Pharmacovigilance: SequelAE-2.0'), IEEE 15th International Conference on e-Health Networking, Applications and Services (Healthcom), Oct 2013, (short).

47. J. Parker, Y. Wei, A. Yates, O. Frieder, N. Goharian "A Framework for Detecting Public Health Trends with Twitter", The 2013 IEEE/ACM International Conference on Advances in Social Network Analysis and Mining, Aug. 2013.

48. A. Yates, N. Goharian, O. Frieder, "Extracting Adverse Drug Reactions from Forum Posts and Linking them to Drugs", SIGIR Workshop on Health Search and Discovery, July-Aug 2013.

49. Y. Zhu and N. Goharian, "To Follow or Not to Follow: A Feature Evaluation", 22nd International Conference on World Wide Web (WWW), May 2013 (short).

50. A. Yates, N. Goharian, and O. Frieder, "Graded Relevance Ranking for Synonym Discovery", 22nd International Conference on World Wide Web (WWW), May 2013 (short).

51. A. Yates and N. Goharian, "ADRTrace: Detecting Expected and Unexpected Adverse Drug Reactions from User Reviews on Social Media Sites", in *35th European Conference on Information Retrieval (ECIR),* March 2013 (short).

2012

52. Z. Tan, N. Goharian, M. Sherr, "$100,000 Prize Jackpot. Call Now! Identifying the Pertinent Features of SMS Spam", *In proceedings of ACM 35th Conference on Research and Development in Information Retrieval (SIGIR),* August 2012. (short)

53. J. Parker, A. Yates, N. Goharian, W. Yee, "Efficient Estimation of Aspect Weights", *In proceedings of ACM 35th Conference on Research and Development in Information Retrieval (SIGIR),* August 2012. (short)

2011

54. N. Goharian, S. Mengle "Networked Hierarchies for Web Directories", *20th International World Wide Web conference (WWW)*, March 2011. (short)

2010

55. N. Goharian, S. Mengle, "Context Aware Query Classification Using Dynamic Query Window and Relationship Net", *In proceedings of ACM 33rd Conference on Research and Development in Information Retrieval (SIGIR),* July 2010. (short)

56. S. Mengle and N. Goharian, "Detecting Relationships among Categories using Text Classification", *Journal of American Society for Information Science and Technology (JASIST)*, 61 (5), May 2010.

57. N. Goharian, O. Frieder, W. G. Yee, J. Mudrawala, "Enriching Peer-to-Peer File Descriptors Using Association Rules on Query Logs", *32nd European Conference On Information Retrieval (ECIR)*, March 2010. (short)

58. S. Mengle, N. Goharian, "Mining Temporal Relationships Among Categories", *ACM 25th Symposium on Applied Computing (SAC)*, March 2010.

2009

59. S. Mengle and N. Goharian, "Ambiguity Measure Feature Selection Algorithm", *Journal of American Society for Information Science and Technology (JASIST)*, 60 (5), April 2009.

60. J. Urbain, O. Frieder, N. Goharian, "Passage relevance models for genomics search", (Journal of) *BMC Bioinformatics*, 10(Suppl 3):S3 (19 March 2009).

61. S. Mengle and N. Goharian, "Passage Detection Using Text Classification", *Journal of American Society for Information Science and Technology (JASIST)*, 60 (4), March 2009.

62. S. Liu, Y. Mehrav, W. G. Yee, N. Goharian, and O. Frieder, "A Sentence Level Probabilistic Model for Evolutionary Theme Pattern Mining for News Corpora", *ACM 24th Symposium on Applied Computing (SAC)*, March 2009.

63. Platt, S. Mengle, N. Goharian, "Improving Classification Based Off-topic Search Detection via Category Relationships", *ACM 24th Symposium on Applied Computing (SAC)*, March 2009.

64. J. Urbain, O. Frieder, and N. Goharian, "A Dimensional Retrieval Model for Integrating Semantics and Statistical Evidence in Context for Genomics Literature Search, "(Journal of) *Computers in Biology and Medicine* 39 (1), January 2009.

2008

65. J. Urbain, O. Frieder, and N. Goharian, "Passage Relevance Models for Genomics Search", *ACM Second International Workshop on Data and Text Mining in Bioinformatics*, Napa Valley, California, October 2008.

66. J. Urbain, N. Goharian, and O. Frieder, "Probabilistic Passage Models for Semantic Search of Genomics Literature," *Journal of the American Society of Information Science and Technology (JASIST)*, 59 (12), September 2008.

67. N. Goharian, S. Mengle, "On Document Splitting in Passage Detection", *In proceedings of ACM 31st Conference on Research and Development in Information Retrieval (SIGIR),* July 2008. (short)

68. S. Mengle, N. Goharian, "Detecting Hidden Passages from Documents", *In proceedings of SIAM Conference on Data Mining (SIAM - SDM) Workshop*, April 2008.

69. S. Mengle, N. Goharian, A. Platt "Discovering Relationships among Categories using Misclassification Information", *ACM 23rd Symposium on Applied Computing (SAC)*, March 2008.

70. S. Mengle, N. Goharian, "Using Ambiguity Measure Feature Selection Algorithm for Support Vector Machine Classifier", *ACM 23rd Symposium on Applied Computing (SAC)*, March 2008.

2007

71. J. Urbain, N. Goharian O. Frieder, "Combining Semantics, Context, and Statistical Evidence in Genomics Literature Search", *The 7th IEEE Int. Conference on Bioinformatics and Bioengineering (BIBE)*, 2007.

72. A. Platt and N. Goharian "Short Query Sequences in Misuse Detection" *IEEE 5th International Conference on Intelligence and Security Informatics (ISI)*, May 2007.

73. N. Goharian and A. Platt "DOTS: Detection of Off-Topic Search Via Result Clustering" *IEEE 5th International Conference on Intelligence and Security Informatics (ISI)*, May 2007.

74. A. Platt, N. Goharian, S. Mengle "Using User Query Sequence to Detect Off-Topic Search", *ACM 22nd Symposium on Applied Computing (SAC)*, March 2007.

2006

75. N. Goharian, A. Platt "Detection Using Clustering Query Results" *IEEE 4th International Conference on Intelligence and Security Informatics (ISI)*, May 2006. (short)

2005

76. N. Goharian, L. Ma, "Off-Topic Access Detection In Information Systems", *ACM 14th Conference on Information and Knowledge Management (CIKM)*, November 2005. (short)

77. N. Goharian, L. Ma, C. Meyer, "Detecting Misuse of Information Retrieval Systems Using Data Mining Techniques" *IEEE 3rd International Conference on Intelligence and Security Informatics (ISI),* May 2005.

78. S. Argamon, N. Goharian, D. Grossman, O. Frieder, N. Raju "A Specialization in Information and Knowledge Management Systems for the Undergraduate Computer Science Curriculum", *IEEE International Conference on Information Technology: Coding & Computing (ITCC),* April 2005.

79. L. Ma and N. Goharian "Query Length Impact on Misuse Detection in Information Retrieval Systems", *ACM 20th Symposium on Applied Computing (SAC)*, March 2005.

2004

80. N. Goharian, L. Ma "Using Relevance Feedback to Detect Misuse in Information Retrieval Systems" *ACM 13th Conference on Information and Knowledge Management (CIKM)*, November 2004. (short)

81. S. Beitzel, E. Jensen, A. Chowdhury, D. Grossman, O. Frieder, N. Goharian," On Fusion of Effective Retrieval Strategies in the Same Information Retrieval System", *Journal of American Society for Information Science and Technology (JASIST)*, 55 (10), July 2004.

82. N. Goharian, D. Grossman, O. Frieder, N. Raju "Migrating Information Retrieval from the Graduate to the Undergraduate Curriculum", *Journal of Information Systems Education*, 15 (1), April 2004.

83. N. Goharian, D. Grossman, N. Raju "Extending the Undergraduate Computer Science Curriculum To Include Data Mining", *IEEE International Conference on Information Technology: Coding & Computing (ITCC),* Las Vegas, Nevada, April 2004.

84. P. Jain, N. Goharian, A. Weiser, S. Kimm, S. Kim, J. Stern, J. Pazona, C. Wambi, R. Yap, L. Blunt, and R. Nadler, "Efficiency and Safety of the Healthtronics LithoTron® Lithotripter", *Journal of EndoUrology,* 18 (1), January/February 2004.

2003

85. Cathey, L. Ma, N. Goharian, D. Grossman, "Misuse Detection for Information Retrieval Systems", *ACM 12th Conference on Information and Knowledge Management (CIKM)*, November 2003.

86. L. Ma, N. Goharian, A. Chowdhury, M. Chung, "Extracting Unstructured Data From Template Generated Web Documents", *ACM 12th Conference on Information and Knowledge Management (CIKM)*, November 2003.

87. S. Beitzel, E. Jensen, A. Chowdhury, O. Frieder, D. Grossman, N. Goharian, "Disproving the Fusion Hypothesis: An Analysis of Data Fusion via Effective Information Retrieval Strategies*", ACM 18th Symposium on Applied Computing (SAC)*, March 2003.

2002

88. E. Jensen, S. Beitzel, A. Pilotto, N. Goharian, O. Frieder "Parallelizing the Buckshot Algorithm for Efficient Document Clustering", *ACM 11th Conference on Information and Knowledge Management (CIKM)*, 2002.

89. N. Goharian, P. Jain, G. Kora, A. Jain "A Web-Based Medical Diagnosis and Treatment System for Urinary Tract Infections", *The 2002 International Conference on Mathematics and Engineering Techniques in Medicine and Biological Sciences (METMBS'02)*, Las Vegas, Nevada, June 2002.

90. D. Grossman, N. Goharian, N. Raju, O. Frieder "Extending the Undergraduate Computer Science Curriculum To Include Information Retrieval and Data Mining", *IASTED International Conference on Computer and Advanced Technology in Education (CATE 2002)*, Cancun, Mexico, 2002.

TREC, TAC, and CLEF:

- Sean MacAvaney, Andrew Yates, Nazli Goharian, Ophir Frieder, "PACRR Gated Expansion for TREC CAR, Text REtrieval Conference, 2018

- Luca Soldaini, Will Edman, Nazli Goharian. "Team GU-IRLAB at CLEF eHealth 2016: Task 3." Conference and Labs of the Evaluation Forum (CLEF). 2016.

- A. Cohan, L. Soldaini, S. Mengle, N. Goharian, "Towards Citation-Based Summarization of Biomedical Literature", Proc. of Text Analysis Conference (TAC – Summarization Track), 2014.

- L. Soldaini, A. Cohan, A. Yates, N. Goharian, O. Frieder, "Query Reformulation for Clinical Decision Support Search", Proc of the 23rd Text REtrieval Conference Proceedings (TREC - Medical Track), 2014.

- A. Yates , D. DeBoer , H. Yang , N. Goharian , S. Kunath , O. Frieder, (Not Too) Personalized Learning to Rank for Contextual Suggestion, TREC 2012 – Contexual Track.

- D. Guan, H. Yang, N. Goharian, Effective Structured Query Formulation for Session Search, TREC 2012. Query Session Track.

- J. Urbain, N. Goharian, O. Frieder, "IIT TREC-2007 Genomics Track: Using Concept-based Semantics in Context for Genomics Literature Passage Retrieval", TREC 2007.

- J. Urbain, N. Goharian, O. Frieder, "IIT TREC-2006: Genomics Track", *Proceedings of the Fifth Text REtrieval Conference*, November 2006.

- J. Urbain, N. Goharian, O. Frieder, "IIT TREC-2005: Genomics Track", *Proceedings of the Fourteenth Text REtrieval Conference*, November 2005.

Book Chapter

- S. Beitzel, E. Jensen, A. Chowdhury, D. Grossman, N. Goharian, O. Frieder "Recent Results on Fusion of Effective Retrieval Strategies in the Same Information Retrieval System", *Lecture Notes in Computer Science*, Springer-Verlag, ISSN: 0302-9743, Vol 2924 / 2003 ,Chapter: pp. 101 – 111, 2005.

University-wide Service

Member of the Main Campus Faculty Senate, (GU: Spring 2017, and July 2017 – June 2020)

Departmental Service

Member, Hiring Committee (GU, 2018)
Member, Merit Review Committee (GU, 2017)
Member, Graduate Committee (GU, 2010-2011, 2017-2018)
Chair, CS Colloquium (GU, 2010-Present)
Member, Bylaws Committee (GU, 2015-2016)
Founder and organizer of Semi-Annual CS Graduate Research Presentation Days (GU, Nov 2012- Present)
Member, ABET Accreditation Committee (IIT, 2002-2009)
Member, Undergraduate Curriculum Committee (IIT, 2001- 2009)
Course supervising manager of Data Mining (IIT, 2003-2009)
Course supervising manager of Information Retrieval Systems (IIT, 2002- 2009)
Course supervising manager of Database Management Systems (IIT, 2001-2009)
Member, Graduate Admissions Committee (IIT, 2000- 2009)

Course Development

Information Retrieval (GU, COCS488)
non-CS-majors Information Systems (GU, COSC 016)
Text Mining & Analysis (GU, COSC 586)
Health Search and Mining (GU, COSC592)
Topics in Information Systems (GU, COSC 799)
Information Retrieval Systems (IIT, CS429)
Data Mining (IIT, CS422)
Database Organization (IIT, CS425)
Information and Knowledge Management (IIT, CS495)
Graduate/Doctoral Seminar: Advanced Topics in Information Retrieval (IIT, CS595)

Teaching

Cosc- Doctoral Seminars in: Information Search & Mining, 2013, 2016, 2020.
Cosc799-Topics in Information Systems: (Spring 2011, Fall 2014)
Cosc592-Health Search and Mining: (Spring 2017)
Cosc586-Text Mining & Analysis: (Fall 2011, 2012, 2013, 2015, 2017, 2018, 2019)
Cosc488-Information Retrieval: (Spring 2010, 2011, 2012, 2018, Fall 2013, 2014, 2015, 2016, 2018, 2019)
Cosc285-Data Mining: (Fall 2010, 2011, 2017, Spring 2013, 2014, 2015, 2016, 2017, 2019, 2020)
Cosc280-Intro to Database: (Fall 2010, Spring 2015, 2018)
Cosc051-Computer Science I: (Fall 2016, 2018)
Cosc016-Information Systems for non-CS-majors: (Spring 2012, Fall 2012, Spring 2014)
CS425-Database Management Systems   (Spring 1998 – Fall 2009, both Fall and Spring semesters)
CS429-Information Retrieval Systems   (Fall 2002 – Fall 2009, Every Fall semester)
CS422-Data Mining (Spring 2003 – Spring 2009, Every Spring semester)
CS495-Information and Knowledge Management (Spring 2006)
CS595-Advanced Topics in Information Retrieval (Fall 2007, Spring 2008)

Graduate Supervision of Independent Research / Master Project:
- Meng Han, [2017-2018, GU], *Helping or Hurting? Predicting Changes in Users' Risk of Self-Harm Through Online Community Interactions*
- Timothy Walsh, [2017-2018, GU], *Helping or Hurting? Predicting Changes in Users' Risk of Self-Harm Through Online Community Interactions*
- Yanan Zhu, [2013, GU], *Whom to follow or not follow friends on Twitter*
- *Biomedical Informatics Symposium at Georgetown University (1 out of 28); Synonym Discovery.*
- David DeBoer, [2012, GU], *Contextual Suggestion Trec [with two other faculties & student: A. Yates]*
- Henry Tan, [2011-2012, GU], *Short text (SMS) spam detection*
- Jon Parker, [2011-2012, GU], *Opinion Mining and Sentiment Analysis of User Reviews*
- Andrew Yates, [2009, IIT], *Efficiency improvements of IRIS and SimpleDM educational tools.*
- Jason Soo, [2009, IIT], *Search for Named Entities in Foreign Languages*
- Jordan Wilberding, [2009, IIT], *Encrypted Index Performance in Information Retrieval Systems*
- Alana Platt, [2008,IIT], *Detecting Off-Topic Search.*
- Ling Ma [multiple semesters, IIT], *Misuse Detection (Detecting Off-Topic Search)*
- Jeff Heard, [2004, IIT], *Design and implementation of an Information Retrieval Instructional System* (IRIS).
- Guruprasad Kora, [2002, IIT], *Medical Informatics: Computer Assisted Diagnosis and Treatment System.*
- Saket Mengle, [2007, IIT], *Text Classification*, **1st Place, 2007 IIT Research Day Comp – (Grad Students)**
- Rebecca Cathey, [2003, IIT], *Misuse Detection for Information Retrieval Systems.*
- Ramya Krishnamurthy, [2003, IIT], *Bioinformatics: Dynamic Generation of Biological Paths*.
- Mi Sun Chung, [2003, IIT], *Development of an Educational Data Mining Tool.*
- Eric Jensen, [2002, IIT], *Parallelizing the Buckshot Algorithm for Efficient Document Clustering*.
- Steven Beitzel, [2002, IIT], An *Analysis of Data Fusion via Effective Information Retrieval Strategies*.
- Qian Sun, [2002, IIT], *Impl. and Eval. of the Sparse Matrix Compression Algorithms for IR System.*

Undergraduate Supervision of Independent Research / Projects:
- William Edman [2016, GU], *Searching Web pages in response to user medical/health queries* (REU)
- Sydney Young [2016, GU], *Automatic Triaging of User Posts on a Mental Health Forum* (DARPA)
- Kevin Meurer [2015-2016,GU], *Temporal extraction of events & relationships from clinical notes* (REU)
- Jonah Joselow [2015, GU], *News cycle's influence on social media activity* (REU)
- Jay Munrawala, [2008-2009, IIT] *Enriching Peer-to-Peer File Descriptors using Association rules on Query Logs*
- Paul Brar, [2006, IIT], *Web interface development for Managing Misuse Detection System.*
- Chris Meyer, [2005, IIT], *Classifier based Misuse Detection System.*
- Levi Citrin, [2005, IIT], *Design and implementation of the project IRIS from Java in C++*.
- Alana Platt, [2005, IIT], *Design and implementation of the project IRIS from Java in C++*.
- Sterling Stein, [2002, IIT], *Mapping of Index Compression Techniques on CSR Information Retrieval.*

Doctoral Committees
- Jason Soo [May 2016, GU], *Search in adverse environments*
- Jon Parker [May 2016, GU], *Effective and Efficient Binarization of Degraded Document Images*
- Ahu Sieg [June 2010, DePaul], *Contextual Inf. Access w/ Ontologies: Integrting Domain Knowledge & User Profiles*
- Linh Nguyen, [May 2009, IIT], *Peer to Peer Information Retrieval.*
- Dongmei Jia, [Dec. 2008, IIT], *Improving Search Quality in Peer-to-Peer File Sharing Systems.*
- Jay Urbain, [2008, IIT], *Multievidentiary Models for Genomics Search.*
- Rebecca Cathey, [Dec. 2007, IIT], *On Scalable Search.*
- Eric Burger [May 2006, IIT], *Ubiquitous Reach and Remote Control of Devices.*
- Eric Jensen [May 2006, IIT], *Repeatable Eval of Info. Retr. Effectiveness in Dynamic Environments.*
- Steve Beitzel [May 2006, IIT], *On Understanding and Classifying Web Queries.*
- Napawan Sawasdichai [May 2004, IIT], *Outside Advisor- Inst. of Design, User-centered Web design.*
- Kagan Agun, [Dec. 2004, IIT], *Hardware Assisted Pruned Inverted Index Component Design & Impl.*
- Vincent Nguyen, [May 2003, IIT], *Channel Alternation and Rotation for Sectorized Wireless Systems.*
- Mohammed Aljlayl, [Aug. 2002, IIT], *on Arabic Search: The effectiveness of Monoling & Bi-directional Inf retrieval*

Professional Activities

Conference Leadership Role
Senior Area Chair (Information Retrieval and Text Mining), ACL 2020
Workshop Organizer (Georgetown University- Computing for Physical and Mental Health), 2018
Area Chair (Information Extraction and Text Mining), ACL 2018, ACL 2019
Program Chair, Information and Knowledge Engineering (IKE), 2003
Conference Track Organizer, IEEE International Conf. on Information Technology (ITCC) 2002, 2004,2005
Conference Track Organizer, Information Systems Engineering, 2001 Int'l Multi-Conference, 2001
Proceedings Chair, ACM Conference on Information & Knowledge Management (CIKM), 2002, 2003
Conference Session Organizer, International Federation of Classification Societies (IFCS), 2004

Conference Committee Participation Role
Program Committee, International World Wide Web Conference; (WWW), 2012, 2018
Program Committee, International Conference on Language Resources and Evaluation (LREC), 2018
Program Committee, 5th Workshop on Computational Linguistics and Clinical Psychology (CLPsych), 2018, 2019
Program Committee, ACM Special Interest Group in Information Retrieval (SIGIR), 2013 – 2017
Program Committee, Digital Health, 2015, 2016, 2017
Program Committee, International Conference on Web Search and Data Mining (WSDM), 2013, 2014, 2016
Program Committee, IEEE conference on String Processing in Information Retrieval (SPIRE), 2006, 2011
Program Committee, ACM Conf. on Information & Knowledge Management (CIKM), 2001-2006, 2008, 2009
Program Committee, ACM SIGKDD Workshop on CyberSecurity and Intelligence Informatics , 2009 – 2011
Program Committee, IEEE Int'l Conference on Intelligence and Security Informatics (ISI), 2007- 2011
Program Committee, IEEE/ACM Int'l Conference on Scalable Information Systems (INFOSCALE), 2006 - 2008
Program Committee, IEEE Int'l Conference on Information Technology (ITCC), 2002, 2004, 2005
Program Committee, ACM SIGIR Workshop on Open Source Information Retrieval, 2006