

Dr Tru Hoang Cao

Professor of Artificial Intelligence

School of Computer Science & Engineering*,
Ho Chi Minh City University of Technology

John von Neumann Institute,
Vietnam National University at Ho Chi Minh City

Email: tru.cao@jvn.edu.vn or tru@cse.hcmut.edu.vn

Homepage: <http://www.cse.hcmut.edu.vn/tru/>

*ABET-accredited programs:

Computer Science, BE and Computer Engineering, BE

<http://main.abet.org/aps/AccreditedProgramsDetails.aspx?OrganizationID=9560>



©Short Biography

Tru Cao is a Professor in the School of Computer Science and Engineering, Ho Chi Minh City University of Technology. He obtained his Bachelor degree from the current university in 1990, Master degree from Asian Institute of Technology in 1995, and PhD degree from the University of Queensland in 1999. He then spent his postdoc at the University of Bristol and the University of California at Berkeley. Tru Cao is co-Founder and Chair of Information Science of John von Neumann Institute, Vietnam National University at Ho Chi Minh City. His past positions include Chair of Information and Communication Technologies, Scientific Council of Vietnam National University at Ho Chi Minh City (2009-2012) and School Vice Dean (2002-2007). In 2007, Tru Cao was in charge of his School's World Bank funded project proposal that then resulted in the School's ABET-accredited programs in Computer Engineering and Computer Science respectively since 2011 and 2012. He was also one of the founding members of the IEEE Vietnam Section established in 2007. Since 2009, he has been holding the Visiting Professorship at Japan Advanced Institute of Science and Technology. Tru Cao is currently a Steering Committee member of PRICAI and PAKDD, has served as Program Committee co-Chair for ICADL 2007, PACIS 2012, and PAKDD 2015, and Program Committee member for more than 100 international conferences. He has published one research book, 6 edited books, 7 book chapters, and over 100 peer-reviewed papers in international journals and conferences in the fields of conceptual structures, soft computing, semantic web, data mining, and machine learning.

©Curriculum Vitae

1. Nationality: Vietnam

2. Education Background:

1996-1999: Doctoral Program in Computer Science
University of Queensland, Australia

1994-1995: Master Program in Computer Science
Asian Institute of Technology, Thailand

- 1985-1990: Bachelor Program in Computer Science and Engineering
Ho Chi Minh City University of Technology, Vietnam
- 1982-1984: Le Hong Phong (formely Pétrus Ky) High School, for gifted students in Mathematics.

3. Degrees:

- PhD, University of Queensland, Australia (1999)
- M. Eng, Asian Institute of Technology, Thailand (1995)
- B. Eng, Ho Chi Minh City University of Technology, Vietnam (1990)

4. Working Experience:

- From 2014: Member of the Vietnam Council for the Professor Title in Information and Communications Technologies
- From 11/2013: Full Professor
School of Computer Science & Engineering
Ho Chi Minh City University of Technology, Vietnam
- 2005 to 10/2013: Associate Professor
School of Computer Science & Engineering
Ho Chi Minh City University of Technology, Vietnam
- 2009-2012: Chair of the Information and Communication Technologies Committee, Scientific Council, Vietnam National University at Ho Chi Minh City
- 04/2011 Visiting Scholar
Berkeley Centre for New Media, UC Berkeley, USA
- 07/2010-08/2010 Visiting Scholar
Computer Science Department, UC Los Angeles, USA
- From 07/2010 Co-Founder and Chair of Information Science
John von Neumann Institute, Vietnam National University at HCMC
- 10/2002-10/2007: Vice Dean
School of Computer Science & Engineering
Ho Chi Minh City University of Technology, Vietnam
In charge of Research, International Relations, Graduate Studies, Talented Student Program
- 10/2002-04/2006: Chair of Computer Science Department
School of Computer Science & Engineering
Ho Chi Minh City University of Technology, Vietnam
- 8/2001-10/2001: Visiting Scholar
Berkeley Initiative in Soft Computing (Lofti Zadeh's Lab), UC Berkeley, USA
- 7/1999-7/2001: Research Associate
Artificial Intelligence Group (with James Baldwin and Trevor Martin), Dept. of Eng. Maths, Uni. of Bristol, UK
- 1990-2004: Lecturer
School of Computer Science & Engineering
Ho Chi Minh City University of Technology, Vietnam

5. Taught Courses and Thesis Supervision:

- Undergraduate courses: Introduction to Computer Science
Principles and Paradigms of Programming Languages
Automata and Formal Languages
Artificial Intelligence
Data Structures and Algorithms
- Graduate courses: Knowledge-Based Systems
Information and Social Networks
Machine Learning
Text and Web Analytics
- Courses taught in English: Automata and Formal Languages, Artificial Intelligence,
Data Structures and Algorithms, Information and Social
Networks, Machine Learning, Text and Web Analytics.
- Thesis supervision completed: 4 PhD students and 40 Master's students.

6. Professional Activities:

- Journal Editorial Board: Oxford Journal of Intelligent Decision and Data Science
International Journal of Fuzzy Set Valued Analysis
- Steering Committee: Pacific-Asia Knowledge Discovery and Data Mining Conference (PAKDD)
Pacific Rim International Conference on Artificial Intelligence (PRICAI)
IEEE-RIVF Conference on Computing and Communication Tech. (RIVF)
- General co-Chair: The 3rd Asian Conference on Information Systems (ACIS 2014)
The 6th Asian Conference on Machine Learning (ACML 2014)
The 8th IEEE-RIVF Conference on Computing and
Communication Technologies (RIVF 2010)
- Program co-Chair: The 12th IEEE-RIVF Conference on Computing and
Communication Technologies (RIVF 2016)
The 19th Pacific-Asia Conference on Knowledge Discovery and
Data Mining (PAKDD 2015)
The 16th Pacific Asia Conference on Info. Systems (PACIS 2012)
The 7th IEEE-RIVF Conference on Computing and
Communication Technologies (RIVF 2009)
The 1st Asian Conference on Intelligent Information and
Database Systems (ACIIDS 2009)
The 6th IEEE-RIVF Conference on Computing and
Communication Technologies (RIVF 2008)
The 10th Intl Conference on Asian Digital Libraries (ICADL 2007)
- Program committee member for more than 100 international conferences.

©Scholarships and Awards

- 2010: Vietnam National University at Ho Chi Minh City Award in recognition of outstanding scientific publication.
- 2007: Vietnam National University at Ho Chi Minh City Award in recognition of contribution to research and development of Semantic Web in Vietnam.
- 2000: Young Researcher Fellowship Award - The 2000 European Symposium on Computational Intelligence.
- 1996-1999: Australian Overseas Postgraduate Research Scholarship
University of Queensland Postgraduate Research Scholarship.
- 1995: Tim Kendall Memorial Prize in recognition of the most outstanding academic performance among the Master's graduates of Computer Science and Information Management Program, Asian Institute of Technology.
- 1994-1995: DAAD (The German Academic Exchange Service) Scholarship.
- 1990: University Gold Medal in recognition of the most outstanding academic performance among the Bachelor's graduates of the School of Electrical Engineering, Ho Chi Minh City University of Technology.

©Textbooks

1. **Cao, T.H.**, *Artificial Intelligence = Algorithms + Intelligence* (2008, in Vietnamese).
2. **Cao, T.H.**, *Programming Languages: Principles and Paradigms* (1st ed. 1993, 2nd ed. 2004, 3rd ed. 2010, in Vietnamese).
3. **Cao, T.H.**, *Introduction to Computer Science* (1992, in Vietnamese).

©Research Interests and Selected Projects

Machine Learning and Applications, Text and Data Analytics, Semantic Web, Social Media Intelligence.

1. Co-Principal Investigator of the Key Project of Vietnam National University - HCMC on *Developing Core Technologies for Mining Electronic Medical Records for Health Care and Medical Research* (2015-2017, large grant).
2. Principal Investigator of the Key Project of Vietnam National University - HCMC on *Wikipedia-Based Entity Disambiguation* (2012-2014, large grant).
3. Principal Investigator of the World Bank University Education Project on *Information Processing on Semantic Web and Applications* (2010-2012, large grant).
4. Principal Investigator of the Key Project of Vietnam National University - HCMC on *Semantic Web Information Extraction and Integration* (2007-2009, large grant).

5. Main Partner of the Joint Research Project on *Advanced Methods for Knowledge Representation and Integration with Applications* (2006-2008, JAIST research grant, with the Knowledge Science School, JAIST, and AI Group, University of Bristol).
6. Principal Investigator of the National Key Project on *Vietnamese Semantic Web* (2004-2006, large grant).
7. Main Developer of *the FRIL++ language project*, funded by the Engineering and Physical Sciences Research Council, UK (1999-2001, large grant).

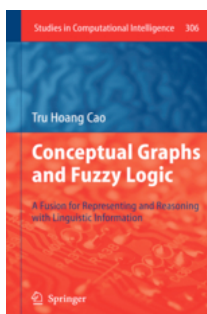
©Invited Talks

1. **Cao, T.H.** (2016), *Entity Recognition for Intelligent Information Management*. At the 10th ACM International Conference on Ubiquitous Information Management and Communication (ACM IMCOM 2016).
2. **Cao, T.H.** (2011), *Fuzzing Conceptual Graphs and Fuzzy Logic: Towards the Structure and Expressiveness of Natural Language*. At the 2nd International Symposium on Integrated Uncertainty in Knowledge Modelling and Decision Making (IUKM 2011).
3. **Cao, T.H.** (2008), *Named Entity-Centred Information Processing*. At the 3rd International Conference on Knowledge, Information, and Creativity Support Systems (KICSS 2008). Seminar at Department of Computer Science, University of California, Los Angeles (November 07, 2008), and Information Sciences Institute, University of Southern California (November 03, 2008).

©List of Publications

Books

1. **Cao, T.H.** (2010), *Conceptual Graphs and Fuzzy Logic: A Fusion for Representing and Reasoning with Linguistic Information*. Studies in Computational Intelligence Vol. 306, Springer-Verlag. First paperback version in 2012.



“This research monograph is devoted to the idea of fuzzy conceptual graphs, their analysis, algorithms and applications. ... One of the outstanding features of the monograph is a formal and systematic coverage of the fundamental concepts. Overall, the book can serve as a valuable, well-structured reference book for all those interested in the effective representation and processing of fuzzy information.”

(Witold Pedrycz, Zentralblatt MATH, Vol. 1208, 2011)

2. **Cao, T.H.** & Lim, E.P. & Zhou, Z.H. & Ho, B.T. & Cheung, D. & Motoda, H. (Eds) (2015), *Advances in Knowledge Discovery and Data Mining*, Proceedings of the 19th Pacific-Asia Conference in Knowledge Discovery and Data Mining, LNAI 9077 and LNAI 9078, Springer-Verlag.

3. Li X.-L. & **Cao, T.H.** & Lim, E.P. & Zhou, Z.H. & Ho, B.T. & Cheung, D. & Motoda, H. (Eds) (2015), *Trends and Applications in Knowledge Discovery and Data Mining*, Proceedings of the PAKDD 2015 Workshops, LNAI 9441, Springer-Verlag.
4. Pan, S.L. & **Cao, T.H.** (Eds) (2012), Proceedings of the 16th Pacific Asia Conference on Information Systems, AIS Electronic Library.
5. **Cao, T.H.** & Kutsche, R.-D. & Demaille, A. (Eds) (2009), Proceedings of the 7th IEEE International Conference on Research, Innovation and Vision for the Future - in Computing and Communication Technologies.
6. **Cao, T.H.** & Ho, B.T. (Eds) (2008), Proceedings of the 6th IEEE International Conference on Research, Innovation and Vision for the Future - in Computing and Communication Technologies.
7. Goh, D.H.-L. & **Cao, T.H.** & Solvberg, I. & Rasmussen, E.M. (Eds) (2007), *Asian Digital Libraries: Looking Back 10 Years and Forging New Frontiers*, Proceedings of the 10th International Conference on Asian Digital Libraries, LNCS 4822, Springer-Verlag.

Guest Editors

1. Li, H. & Phung, D. & **Cao, T.H.** & Ho, B.T. & Zhou, Z.H. (Eds) (2016), *Special Issue of Selected Papers from ACML 2014*, Machine Learning, 103 (2).
2. Ho, B.T. & Bellot, P. & **Cao, T.H.** (Eds) (2012), *Advances in Information and Knowledge Systems*, Special Issue of Journal of Ambient Intelligence and Humanized Computing, 3 (4).

Book Chapters

1. **Cao, T.H.** (2008), *Fuzzy and Probabilistic Object-Oriented Databases*. Encyclopaedia of Information Science and Technology, 2nd Edition, IGI Global.
2. **Cao, T.H.** & Tang, T.M. & Chau, C.K. (2012), *Text Clustering with Named Entities: A Model, Experimentation and Realization*. Book Chapter in Dawn, H. (ed.): Data Mining: Foundations and Intelligent Paradigms, Springer, 267-287.
3. **Cao, T.H.** & Huynh, D.T. (2006), *Approximate Knowledge Graph Retrieval: Measures and Realization*. Book Chapter in Sanchez, E. (Ed.): Fuzzy Logic and the Semantic Web, Capturing Intelligence, Elsevier Science, pp. 283-304.
4. **Cao, T.H.** & Nguyen, H. (2005), *Fuzzy and Probabilistic Object Bases*. Book Chapter in Ma, Z. (Ed.): Advances in Fuzzy Object-Oriented Databases: Modeling and Applications, Idea Group Inc., pp. 46-84.
5. Rossiter, J.M. & **Cao, T.H.** (2005), *Fril++ and Its Applications*. Book Chapter in Ma, Z. (Ed.): Advances in Fuzzy Object-Oriented Databases: Modeling and Applications, Idea Group Inc., pp. 113-152.
6. **Cao, T.H.** (2003), *Conceptual Graphs for Modelling and Computing with Generalized Quantified Statements*. Book Chapter in Lawry, J. & Shanahan, J. & Ralescu, A. (Eds):

Modelling with Words: Learning, Fusion, and Reasoning within a Formal Linguistic Representation Framework, LNAI, Springer-Verlag, pp. 80-101.

7. **Cao, T.H.** & Rossiter, J.M. & Martin, T.P. & Baldwin, J.F. (2002), *On the Implementation of Fril++ for Object-Oriented Logic Programming with Uncertainty and Fuzziness*. Book Chapter in Bouchon-Meunier, B. et al. (Eds): Technologies for Constructing Intelligent Systems, Studies in Fuzziness and Soft Computing, Physica-Verlag (a Springer-Verlag company), pp. 393-406.

International Journals

1. Tran, T. & **Cao, T.H.** (2013), *Automatic Detection of Outdated Information in Wikipedia Infoboxes*. Research in Computing Science, 70, 211-222.
2. Nguyen, H.T. & **Cao, T.H.** (2012), *Named Entity Disambiguation: A Hybrid Approach*. International Journal of Computational Intelligence Systems, 5 (6), 1052-1067.
3. **Cao, T.H.** & Ngo, V.M. (2012), *Semantic Search by Latent Ontological Features*. Journal of New Generation Computing, 30 (1), 53-71.
4. **Cao, T.H.** & Nguyen, H. (2011), *Uncertain and Fuzzy Object Bases: A Data Model and Algebraic Operations*. International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, 19 (2), 275-305.
5. **Cao, T.H.** & Noi, N.V. (2010), *A Framework for Linguistic Logic Programming*. International Journal of Intelligent Systems, 25 (6), 559-580.
6. **Cao, T.H.** & Nguyen, H. (2007), *A Hybrid Object Base Model Combining Probability and Fuzzy Set Theories*. International Journal of Intelligent Information and Database Systems, 1 (3/4), 386-406.
7. Nguyen, V.T.T. & **Cao, T.H.** (2007), *VN-KIM IE: Automatic Extraction of Vietnamese Named-Entities on the Web*. Journal of New Generation Computing, 25 (3), 277-292.
8. Ngan, L.D. & Goh, A. & **Cao, T.H.** (2007), *A Survey and a Taxonomy of Web Service Discovery Systems*. International Journal of Information Technology and Web Engineering, 2 (2), 65-80.
9. **Cao, T.H.** & Huynh, D.T. (2007), *Subsumption Degrees between Entity Types and Names for Approximate Knowledge Retrieval*. International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, World Scientific, 15 (1), 21-42.
10. Ngan, L.D. & Goh, A. & **Cao, T.H.** (2006), *Multi-Ontology Matchmaker*. International Journal of Metadata, Semantics and Ontologies, 1 (4), 250-264.
11. Quan, T.T. & Hui, S.C. & Fong Alvis, C.M. & **Cao, T.H.** (2006), *Automatic Fuzzy Ontology Generation for Semantic Web*. IEEE Transactions on Knowledge and Data Engineering, 18, 842-856.

12. **Cao, T.H.** (2004), *A Note on the Model-Theoretic Semantics of Fuzzy Logic Programming for Dealing with Inconsistency*. International Journal of Fuzzy Sets and Systems, Elsevier Science, 144, 93-104.
13. **Cao, T.H.** & Rossiter, J.M. (2003), *A Deductive Probabilistic and Fuzzy Object-Oriented Database Language*. International Journal of Fuzzy Sets and Systems, Elsevier Science, 140 (1), 129-150.
14. **Cao, T.H.** (2002), *A Formalism for Representing and Reasoning with Linguistic Information*. International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, World Scientific, 10 (3), 281-307.
15. **Cao, T.H.** (2001), *Uncertain Inheritance and Recognition as Probabilistic Default Reasoning*. International Journal of Intelligent Systems, John Wiley & Sons, 16 (6), 781-803.
16. **Cao, T.H.** & Creasy, P.N. (2000), *Fuzzy Types: A Framework for Handling Uncertainty about Types of Objects*. International Journal of Approximate Reasoning, Elsevier Science, 25 (3), 217-253.
17. **Cao, T.H.** (2000), *Annotated Fuzzy Logic Programs*. International Journal for Fuzzy Sets and Systems, Elsevier Science, 113 (2), 277-298.

International Conferences

1. Vo, C.T.N. & **Cao, T.H.** & Ho, B.T. (2016) *Abbreviation Identification in Clinical Notes with Level-wise Feature Engineering and Supervised Learning*. In Proc. of the 14th International Workshop on Knowledge Management and Acquisition for Intelligent Systems (PKAW'2016, August 22-23, Phuket, Thailand), LNAI 9806, Springer-Verlag, pp. 1-15.
2. Dinh, T.Q. & Le, H.V. & **Cao, T.H.** & Luong, Q.C. & Diep, H.T. (2016) *Forecasting the Magnitude of Dengue in Southern Vietnam*. In Proc. of the 8th Asian Conference on Intelligent Information and Database Systems (ACIIDS'2016, March 14-16, Da Nang, Vietnam), LNCS 9621, Springer-Verlag, pp. 554-563.
3. Pham, M.T.X. & **Cao, T.H.** & Huynh, H.M. (2016) *Candidate Searching and Key Coreference Resolution for Wikification*. In Proc. of the 10th ACM International Conference on Ubiquitous Information Management and Communication (ACM IMCOM '2016, January 04-06, Da Nang, Vietnam), pp.1-5.
4. Tran, V.Q. & **Cao, T.H.** (2015). *Linking Online Dictionaries to Wikipedia*. In Proc. of the 11th IEEE International Conference on Research, Innovation and Vision for the Future - in Computing and Communication Technologies (IEEE-RIVF'2015, January 25-28, Can Tho, Vietnam), pp. 30-34.
5. Nguyen, T.L.T. & **Cao, T.H.** (2014). *Multi-group-based User Perceptions for Friend Recommendation in Social Networks*. In Proc. of the 14th International Workshop on

- Knowledge Management and Acquisition for Intelligent Systems (PKAW'2014, December 01-02, Gold Coast, Australia), Springer-Verlag, 525-534.
6. Dong, D.T. & **Cao, T.H.** (2014). *Improvement of Vietnamese Text Classification by Class Frequency Term Weighting*. In Proc. of the 3rd Asian Conference on Information Systems (ACIS'2014, December 01-03, Nha Trang, Vietnam).
 7. Bui, N.T.N. & **Cao, T.H.** (2014). *A Method for Vietnamese Opinion Mining*. In Proc. of The 3rd Asian Conference on Information Systems (ACIS'2014, December 01-03, Nha Trang, Vietnam).
 8. Tran, T. & **Cao, T.H.** (2013), *A Hybrid Method for Detecting Outdated Information in Wikipedia Infoboxes*. In Proc. of the 10th IEEE International Conference on Research, Innovation and Vision for the Future - in Computing and Communication Technologies (IEEE-RIVF'2013, November 10-13, Ha Noi, Vietnam), 97-102.
 9. Huynh, H.M. & Nguyen, T.T. & **Cao, T.H.** (2013), *Using Coreference and Surrounding Contexts for Entity Linking*. In Proc. of the 10th IEEE International Conference on Research, Innovation and Vision for the Future - in Computing and Communication Technologies (IEEE-RIVF'2013, November 10-13, Ha Noi, Vietnam), 1-5.
 10. Nguyen, H.K. & **Cao, T.H.** (2013), *Using Core Phrases and Information Features for Keyphrase Extraction*. In Proc. of the 2nd Asian Conference on Information Systems (ACIS'2013, October 31 – November 02, Phuket, Thailand), 291-296.
 11. Nguyen, T.K. & **Cao, T.H.** (2013), *Exploiting WordNet for Wikipedia-Based Named Entity Disambiguation*. In Proc. of the 2nd Asian Conference on Information Systems (ACIS'2013, October 31-November 02, Phuket, Thailand), 275-281.
 12. Pham, N. & **Cao, T.H.** (2013), *A Spatio-Temporal Profiling Model for Person Identification*. In Proc. of the 5th Knowledge and Systems Engineering (KSE'2013, October 17-19, Ha Noi, Vietnam), 363-373.
 13. Truong, L.M. & **Cao, T.H.** & Dinh, D. (2013), *Towards Vietnamese Entity Disambiguation*. In Proc. of the 5th Knowledge and Systems Engineering (KSE'2013, October 17-19, Ha Noi, Vietnam), 285-294.
 14. Tran, T. & **Cao, T.H.** (2013), *Automatic Detection of Outdated Information in Wikipedia Infoboxes*. In Poster Presentations at the 14th International Conference on Intelligent Text Processing and Computational Linguistics (CICLING'2013, March 24-30, Samos, Greece).
 15. Ta, T.A. & **Cao, T.H.** & Nguyen, T.V. (2012), *The Hybrid Approach of Image Segmentation Using MeanShift and Saliency Maps*. In Proc. of the 4th Knowledge and Systems Engineering (KSE'2012, August 17-19, Da Nang, Vietnam), 11-17.
 16. Ho, D.T. & **Cao, T.H.** (2012), *A High-Order Hidden Markov Model for Emotion Detection from Textual Data*. In Proc. of the 12th International Workshop on Knowledge

- Management and Acquisition for Intelligent Systems (PKAW'2012, September 05-06, Kuching, Sarawak, Malaysia), Springer-Verlag, 94-105.
17. Nguyen, H.T. & **Cao, T.H.** & Nguyen, T.T. & Vo, L.T.T. (2012), *Heuristics- and Statistics-Based Wikification*. In Proc. of the 12th Pacific Rim International Conference on Artificial Intelligence (PRICAI'2012, September 03-07, Kuching, Sarawak, Malaysia), Springer-Verlag, 679-682.
 18. Nguyen, V.T.T. & **Cao, T.H.** (2012), *Linguistically Motivated and Ontological Features for Vietnamese Named Entity Recognition*. In Proc. of the 9th IEEE International Conference on Research, Innovation and Vision for the Future - in Computing and Communication Technologies (IEEE-RIVF'2012, February 27 – March 04, Ho Chi Minh City, Vietnam), 13-18.
 19. Le, T.M.V. & **Cao, T.H.** & Hoang, S.M. & Cho, J. (2011), *Ontology-Based Proximity Search*. In Proc. of the 13th International Conference on Information Integration and Web-based Applications & Services (iiWAS'2011, December 05-07, Ho Chi Minh City, Vietnam), 288-291.
 20. Ngo, V.M. & **Cao, T.H.** (2011), *Discovering Latent Concepts and Exploiting Ontological Features for Semantic Text Search*. In Proc. of the 5th International Joint Conference on Natural Language Processing (IJCNLP'2011, November 08-13, Chiang Mai, Thailand), 571-579.
 21. Ngo, V.M. & **Cao, T.H.** & Le, T.M.V. (2011), *WordNet-Based Information Retrieval Using Common Hypernyms and Combined Features*. In Proc. of the 5th International Conference on Intelligent Computing and Information Systems (ICICIS'2011, June 30 - July 03, Cairo, Egypt).
 22. Ngo, V.M. & **Cao, T.H.** & Le, T.M.V. (2010), *Combining Named Entities with WordNet and Using Query-Oriented Spreading Activation for Semantic Text Search*. In Proc. of the 8th IEEE International Conference on Research, Innovation and Vision for the Future - in Computing and Communication Technologies (IEEE-RIVF'2010, November 01-04, Ha Noi , Vietnam), 13-18.
 23. Nguyen, H.T. & **Cao, T.H.** (2010), *Enriching Ontologies for Named Entity Disambiguation*. In Proc. of the 4th International Conference on Advances in Semantic Processing (SEMAPRO'2010, October 25-30, 2010, Florence, Italy), 37-42.
 24. **Cao, T.H.** & Anh, M.H. (2010), *Ontology-Based Understanding of Natural Language Queries using Nested Conceptual Graphs*. In Proc. of the 18th International Conference on Conceptual Structures (ICCS'2010, July 26-30, Kuching, Malaysia), Springer-Verlag, 70-83.
 25. Huynh, D.T. & **Cao, T.H.** (2010), *Conceptual Graphs for Semantic Email Addressing*. In Proc. of the 18th International Conference on Conceptual Structures (ICCS'2010, July 26-30, Kuching, Malaysia), Springer-Verlag, 195-198.

26. Nguyen, H.T. & **Cao, T.H.** (2010), *Exploring Wikipedia and Text Features for Named Entity Disambiguation*. In Proc. of the 2nd Asian Conference on Intelligent Information and Database Systems (ACIIDS'2010, March 24-26, Hue City, Vietnam), Springer-Verlag, 11-20.
27. Ngo, V.M. & **Cao, T.H.** (2010), *Ontology-Based Query Expansion with Latently Related Named Entities for Semantic Text Search*. In Proc. of the 2nd Asian Conference on Intelligent Information and Database Systems (ACIIDS'2010, March 24-26, Hue City, Vietnam), Springer-Verlag, 41-52.
28. **Cao, T.H.** & Huynh, N.V. (2010), *Combination of Uncertain Class Membership Degrees with Probabilistic, Belief, and Possibilistic Measures*. In Proc. of the International Symposium on Integrated Uncertainty Management and Applications (IUM'2010, April 09-11, Ishikawa, Japan), Springer-Verlag, 383-394.
29. Huynh, D.T. & **Cao, T.H.** & Pham, P.H.T. & Hoang, T.N. (2009), *Using Hyperlink Texts to Improve Quality of Identifying Document Topics Based on Wikipedia*. In Proc. of the 1st International Conference on Knowledge and Systems Engineering (KSE'2009, October 13-17, Ha Noi, Vietnam), CPS - IEEE Computer Society, 249-254.
30. Duong, V.T.T. & **Cao, T.H.** & Chau, C.K. & Quan, T.T. (2009), *Latent Ontological Feature Discovery for Text Clustering*. In Proc. of the 7th IEEE International Conference on Research, Innovation and Vision for the Future - in Computing and Communication Technologies (IEEE-RIVF'2009, July 13-17, Da Nang, Vietnam), 264-271.
31. Nguyen, H.T. & **Cao, T.H.** (2008), *Named Entity Disambiguation: A Hybrid Statistical and Rule-based Incremental Approach*. In Proc. of the 3th Asian Semantic Web Conference (ASWC'2008, December 08-11, Bangkok, Thailand), Springer-Verlag, 420-433.
32. Huynh, D.T. & **Cao, T.H.** & Ta, H.Q. & Nguyen, L.H. (2008), *VN-KIM KBM: A Distributed and Collective Tool for Managing Semantic Web Knowledge Bases*. In Proceedings of the 1st Workshop on Human Factors and the Semantic Web (SWAHA'2008, December 08, Bangkok, Thailand, in conjunction with ASWC'2008), 153-158.
33. **Cao, T.H.** & Cao, T.D. & Tran, T.L. (2008), *A Robust Ontology-Based Method for Translating Natural Language Queries to Conceptual Graphs*. In Proc. of the 3th Asian Semantic Web Conference (ASWC'2008, December 08-11, Bangkok, Thailand), Springer-Verlag, 479-492.
34. **Cao, T.H.** & Le, K.C. & Ngo, V.M. (2008), *Exploring Combinations of Ontological Features and Keywords for Text Retrieval*. In Proc. of the 10th Pacific Rim International Conference on Artificial Intelligence (PRICAI'2008, December 15-19, Ha Noi, Vietnam), Springer-Verlag, 603-613.

35. Nguyen, H.T. & **Cao, T.H.** (2008), *Named Entity Disambiguation on an Ontology Enriched by Wikipedia*. In Proc. of the 6th IEEE International Conference on Research, Innovation and Vision for the Future - in Computing and Communications Technologies (RIVF'2008, July 13-17, Ho Chi Minh City, Vietnam), 247-254.
36. **Cao, T.H.** & Do, H.T. & Hong, D.T. & Quan, T.T. (2008), *Fuzzy Named Entity-Based Document Clustering*. In Proc. of the 17th IEEE International Conference on Fuzzy Systems (FUZZ-IEEE'2008, June 01-06, Hong Kong).
37. **Cao, T.H.** & Ngo, V.M. & Hong, D.T. & Quan, T.T. (2008), *A Named-Entity-Based Multi-Vector Space Model for Semantic Document Clustering*. In Proc. of the 1st Pacific-Asia Workshop on Web Mining and Web-Based Application (WMWA'2008, May 20, Osaka, Japan).
38. **Cao, T.H.** & Nguyen, H. & Nam, M. (2008), *Modelling and Computing with Imprecise and Uncertain Properties in Object Bases*. In Proc. of the International Workshop on Interval/Probabilistic Uncertainty and Non-Classical Logics (UncLog'2008, March 25-28, Ishikawa, Japan), Springer-Verlag, 141-162.
39. Quan, T.T. & **Cao, T.H.** (2008), *Approximate Reasoning for Fuzzy Information Retrieval*. In Proc. of the International Workshop on Interval/Probabilistic Uncertainty and Non-Classical Logics (UncLog'2008, March 25-28, Ishikawa, Japan), Springer-Verlag, 103-114.
40. Quan, T.T. & Hui, S.C. & **Cao, T.H.** (2007), *Ontology-Based Fuzzy Retrieval for Digital Library*. In Proc. of the 10th International Conference on Asian Digital Libraries (ICADL'2007, December 10-13, Ha Noi, Vietnam), Springer-Verlag, 95-98.
41. Nguyen, H.T. & **Cao, T.H.** (2007), *A Knowledge-Based Approach to Named Entity Disambiguation in News Articles*. In Proc. of the 20th Australian Joint Conference on Artificial Intelligence (AI'2007, December 02-06, Queensland, Australia), LNCS 4830, Springer-Verlag, 619-624.
42. Luu, T.A. & Quan, T.T. & **Cao, T.H.** & Dong, J-S. (2007), *Axiom-Oriented Reasoning to Deal with Inconsistency Between Ontology and Knowledge Base*. In Proc. of the Uncertainty Reasoning for the Semantic Web Workshop, held in conjunction with the 6th International Semantic Web Conference, (ISWC'2007, November 11-15, Busan, Korea).
43. Nguyen, H. & **Cao, T.H.** (2007), *Extending Probabilistic Object Bases with Uncertain Applicability and Imprecise Values of Class Properties*. In Proc. of the 16th IEEE International Conference on Fuzzy Systems (FUZZ-IEEE'2007, July 24-26, London, England), 487-492.
44. Nam, M. & Ngoc, N.T.B & Nguyen, H. & **Cao, T.H.** (2007), *FPDBAO: A Fuzzy and Probabilistic Object Base Management System*. In Proc. of the 16th IEEE International Conference on Fuzzy Systems (FUZZ-IEEE'2007, July 24-26, London, England), 676-681.

45. Nguyen, C.Q. & Phan, T.T. & **Cao, T.H.** (2007), *A Pattern-Based Approach to Vietnamese Key Phrase Extraction*. In Addendum Contributions of the 5th International Conference on Research, Innovation and Vision for the Future (RIVF'2007, March 5-9, Ha Noi, Viet Nam), Studia Informatica Universalis, 41-46.
46. Nguyen, H.T. & **Cao, T.H.** (2007), *A Knowledge-Based Method to Resolve Name Ambiguity in Vietnamese Texts*. In Addendum Contributions of the 5th International Conference on Research, Innovation and Vision for the Future (RIVF'2007, March 5-9, Ha Noi, Viet Nam), Studia Informatica Universalis, 83-88.
47. Ha, V.T. & Nguyen-Van, Q.A. & **Cao, T.H.** & Lawry, J. (2006), *A Fuzzy Synset-Based Hidden Markov Model for Automatic Text Segmentation*. In Proc. of the International Conference on Soft Methods in Probability and Statistics (SMPS'2006, September 5-7, 2006, Bristol, UK), Springer-Verlag, pp. 365-372.
48. Nguyen, C.Q. & Phan, T.T. & **Cao, T.H.** (2006), *Vietnamese Proper Noun Recognition*. In Proc. of the 4th International Conference on Research, Innovation and Vision for the Future (RIVF'2006, February 12-16, Ho Chi Minh City, Viet Nam), IEEE Press, pp. 145-152.
49. Le, P. & **Cao, T.H.** (2006), *Automatic News Extraction from Web Pages*. In Addendum Contributions of the 4th International Conference on Research, Innovation and Vision for the Future (RIVF'2006, February 12-16, Ho Chi Minh City, Viet Nam), Special Issue of Studia Informatica Universalis, pp. 47-52.
50. Ngan, L.D. & Goh, A. & **Cao, T.H.** (2005), *Matchmaker for Semantic Web Services Using Different Ontologies*. In Proc. of the 7th International Conference on Information Integration and Web-Based Applications & Services (iiWAS'2005, September, 2005, Kuala Lumpur, Malaysia).
51. **Cao, T.H.** & Huynh, D.T. (2005), *Approximate Retrieval of Knowledge Graphs*. In Proc. of the 11th World Congress of International Fuzzy Systems Association (IFSA'2005, July 28-31, 2005, Beijing, China), Tsinghua-Springer, pp. 652-657.
52. **Cao, T.H.** & Do, H.T. & Pham, B.T.N. & Huynh, T.N. & Vu, D.Q. (2005), *Conceptual Graphs for Knowledge Querying in VN-KIM*. In Contributions of the 13th International Conference on Conceptual Structures (ICCS'2005, July 18-22, 2005, Kassel, Germany), Kassel University Press, pp. 27-40.
53. Nguyen, C.D. & Dung, T.A. & **Cao, T.H.** (2005), *Text Classification for DAG-Structured Categories*. In Ho, T.B. & Cheung, D. & Liu, H. (Eds): *Advances in Knowledge Discovery and Data Mining*, Proc. of the 9th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'2005, May 18-20, Ha Noi, Viet Nam), LNAI 3518, Springer-Verlag, pp. 290-300.
54. **Cao, T.H.** & Nguyen, T.H.D. & Qui, T.C.T. (2005), *Searching the Web: a Semantics-Based Approach*. In Bock, H.G. et al. (Eds): *Modelling, Simulation and*

- Optimization of Complex Processes, Proc. of the 2003 International Conference on High Performance Scientific Computing (HPSC'2003, March 10-14, Ha Noi, Viet Nam), Springer-Verlag, pp. 57-68.
55. Sach, L.T. & **Cao, T.H.** & Son, L.T. & Thang, L.N. (2005), *An Object-Oriented Approach to Specification and Composition of Web Services*. In Bock, H.G. et al. (Eds): Modelling, Simulation and Optimization of Complex Processes, Proc. of the 2003 International Conference on High Performance Scientific Computing (HPSC'2003, March 10-14, Ha Noi, Viet Nam), Springer-Verlag, pp. 427-440.
 56. **Cao, T.H.** (2004), *Combination of Uncertain Membership Measures on a Class Hierarchy*. In Proc. of the 2004 Asian Fuzzy Systems Society Conference (AFSS'2004, December 15-17, Ha Noi, Vietnam), pp.99-103.
 57. **Cao, T.H.** & Ta, M.T.H. & Luong, T.Q. (2004), *A Domain-Specific Concept-Based Searching System*. In Proc. of the 2004 Vietnam-Japan Workshop on Active Mining (AM'2004, December 4-7, Hanoi, Vietnam), Japanese Artificial Intelligence Society SIG-KBS-A403, pp. 197-200.
 58. Quan, T.T. & Hui, S.C. & **Cao, T.H.** (2004), *A Fuzzy FCA Approach for Citation-based Document Retrieval*. In Proc. of the IEEE International Conference on Cybernetics and Intelligent Systems (CIS'2004, December 7-11, Singapore), pp. 578-583.
 59. Quan, T.T. & Hui, S.C. & Fong Alvis, C.M. & **Cao, T.H.** (2004), *Automatic Generation of Ontology for Scholarly Semantic Web*. In Proc. of the 3rd International Semantic Web Conference (ISWC'2004, November 7-11, Hiroshima, Japan), LNAI 3298, Springer-Verlag, pp. 726-740.
 60. Quan, T.T. & Hui, S.C. & **Cao, T.H.** (2004), *A Fuzzy FCA-based Approach to Conceptual Clustering for Automatic Generation of Concept Hierarchy on Uncertainty Data*. In Proc. of the 2004 Concept Lattices and Their Applications Workshop (CLA'2004, September 23-24, VSB - TU Ostrava, Czech Republic), pp. 1-12.
 61. Quan, T.T. & Hui, S.C. & **Cao, T.H.** (2004), *FOGA: A Fuzzy Ontology Generation Framework for Scholarly Semantic Web*. In Proc. of the 2004 Knowledge Discovery and Ontologies Workshop (KDO'2004, September 24, Pisa, Italy), pp. 37-48.
 62. Noi, N.V. & **Cao, T.H.** (2004), *Annotated Linguistic Logic Programs for Soft Computing*. In Proc. of the 2nd International Conference of Vietnam & Francophone Informatics Research (RIVF'2004, February 2-5, Ha Noi, Viet Nam).
 63. Thao, P.T.T. & **Cao, T.H.** (2004), *A Top-Down Method for Program Plagiarism Detecting Systems*. In Proc. of the 2nd International Conference of Vietnam & Francophone Informatics Research (RIVF'2004, February 2-5, Ha Noi, Viet Nam).
 64. **Cao, T.H.** & Nguyen, H. (2002), *Towards Fuzzy and Probabilistic Object Bases*. In Proc. of the 3rd International Conference on Intelligent Technologies and the 3rd

Vietnam-Japan Symposium on Fuzzy Systems and Applications (INTECH/VJFUZZY'2002, December 3-5, Ha Noi, Viet Nam).

65. **Cao, T.H.** & Rossiter, J.M. (2001), *Fril++ for Machine Learning*. In Proc. of the 2nd Vietnam-Japan Symposium on Fuzzy Systems and Applications (VJFUZZY'2001, December 7-8, Ha Noi, Viet Nam), pp. 225-232.
66. Rossiter, J.M. & **Cao, T.H.** & Martin, T.P. & Baldwin, J.F. (2001), *User Recognition in Uncertain Object-Oriented User Modelling*. In Proc. of the 10th IEEE International Conference on Fuzzy Systems (FUZZ-IEEE'2001, December 2-5, Melbourne, Australia).
67. Rossiter, J.M. & **Cao, T.H.** & Martin, T.P. & Baldwin, J.F. (2001), *Object-Oriented Modeling with Words*. In Proc. of FUZZ-IEEE'2001 Workshop on Modelling with Words. (December 2-3, Melbourne, Australia).
68. Rossiter, J.M. & **Cao, T.H.** & Martin, T.P. & Baldwin, J.F. (2001), *Imprecise Belief Updating for Uncertain User Modelling*. In Proc. of 2nd International Conference on Fuzzy Logic and Technology (EUSFLAT'2001, September 5-7, Leicester, UK).
69. **Cao, T.H.** (2001), *Fuzzy Conceptual Graphs for the Semantic Web*. In Proc. of the 1st BISC International Workshop on Fuzzy Logic and the Internet, (FLINT'2001, August 14-17, Berkeley, USA).
70. **Cao, T.H.** (2001), *Generalized Quantifiers and Conceptual Graphs*. In Delugach, H.S. & Stumme, G. (Eds): *Conceptual Structures - Broadening the Base*, Proc. of the 9th International Conference on Conceptual Structures (ICCS'2001, July 30-August 03, Stanford, USA), LNAI 2120, Springer-Verlag, pp. 87-100.
71. **Cao, T.H.** & Rossiter, J.M. & Martin, T.P. & Baldwin, J.F. (2001), *Inheritance and Recognition in Uncertain and Fuzzy Object-Oriented Models*. In Proc. of the 1st International Joint Conference of the International Fuzzy Systems Association and the North American Fuzzy Information Processing Society, (IFSA/NAFIPS'2001, July 25-28, Vancouver, Canada), pp. 2317-2322.
72. Rossiter, J.M. & **Cao, T.H.** & Martin, T.P. & Baldwin, J.F. (2000), *A Fril++ Compiler for Soft Computing Object-Oriented Logic Programming*. In Proc. of the 6th International Conference on Soft Computing (IIZUKA'2000, October 01-04, Iizuka, Fukuoka, Japan), pp. 340-345.
73. **Cao, T.H.** (2000), *Fuzzy Conceptual Graphs: A Language for Computational Intelligence Approaching Human Expression and Reasoning*. In Sincak, P. et al. (Eds): *The State of the Art in Computational Intelligence*, Proc. of the 2000 European Symposium on Computational Intelligence (ESCI'2000, August 30-September 01, Kosice, Slovakia), *Advances in Soft Computing*, Physica-Verlag (a Springer-Verlag company), pp. 114-120.
74. **Cao, T.H.** (2000), *On the Model-Theoretic Semantics of Fuzzy Set Logic for Dealing with Inconsistency*. In Sincak, P. & Vascak, J. (Eds): *Quo Vadis Computational Intelligence? New Trends and Approaches in Computational Intelligence*, Proc. of the 2000 European

- Symposium on Computational Intelligence (ESCI'2000, August 30-September 01, Kosice, Slovakia), Studies in Fuzziness and Soft Computing, Physica-Verlag (a Springer-Verlag company), pp. 271-277.
75. Baldwin, J.F. & **Cao, T.H.** (contact author) & Martin, T.P. & Rossiter, J.M. (2000), *Implementing Fril++ for Uncertain Object-Oriented Logic Programming*. In Proc. of the 8th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU'2000, July 3-7, Madrid, Spain), pp. 496-503.
 76. Baldwin, J.F. & **Cao, T.H.** (contact author) & Martin, T.P. & Rossiter, J.M. (2000), *Towards Soft Computing Object-Oriented Logic Programming*. In Proc. of the 9th IEEE International Conference on Fuzzy Systems (FUZZ-IEEE'2000, May 7-10, San Antonio, USA), pp. 768-773.
 77. **Cao, T.H.** & Creasy, P.N. (1998), *Fuzzy Order-Sorted Logic Programming in Conceptual Graphs with a Sound and Complete Proof Procedure*. In Mugnier, M.L. & Chein, M. (Eds): Conceptual Structures - Theory, Tools and Applications, Proc. of the 6th International Conference on Conceptual Structures (ICCS'98, August 10-12, Montpellier, France), LNAI 1453, Springer-Verlag, pp. 270-284.
 78. **Cao, T.H.** (1998), *Annotated Fuzzy Logic Programs for Soft Computing*. In Proc. of the 2nd International Conference on Computational Intelligence and Multimedia Applications (ICCIMA'98, February 9-11, Gippsland, Australia), Selvaraj, H. & Verma, B. (Eds), World Scientific, pp. 459-464.
 79. **Cao, T.H.** & Creasy, P.N. & Wuwongse, V. (1997), *Fuzzy Unification and Resolution Proof Procedure for Fuzzy Conceptual Graph Programs*. In Lukose, D. et al. (Eds): Conceptual Structures - Fulfilling Peirce's Dream, Proc. of the 5th International Conference on Conceptual Structures (ICCS'97, August 3-8, Seattle, USA), LNAI 1257, Springer-Verlag, pp. 386-400.
 80. **Cao, T.H.** & Creasy, P.N. (1997), *Universal Marker and Functional Relation: Semantics and Operations*. In Lukose, D. et al. (Eds): Conceptual Structures - Fulfilling Peirce's Dream, Proc. of the 5th International Conference on Conceptual Structures (ICCS'97, August 3-8, Seattle, USA), LNAI 1257, Springer-Verlag, pp. 416-430.
 81. **Cao, T.H.** & Creasy, P.N. & Wuwongse, V. (1997), *Fuzzy Types and Their Lattices*. In Proc. of the 6th IEEE International Conference on Fuzzy Systems (FUZZ-IEEE'97, July 1-5, Barcelona, Spain), pp. 805-812.
 82. Wuwongse, V. & **Cao, T.H.** (1996), *Towards Fuzzy Conceptual Graph Programs*. In Eklund, P. et al. (Eds): Conceptual Structures - Knowledge Representation as Interlingua, Proc. of the 4th International Conference on Conceptual Structures (ICCS'96, August 19-22, Sydney, Australia), LNAI 1115, Springer-Verlag, pp. 263-276.

©Reference Contact Information

1. **Professor Junghoo Cho**

Department of Computer Science
University of California at Los Angeles, USA
Tel: (310) 571-8240
Email: cho@cs.ucla.edu

2. **Professor Thuy Le**

Associate Chair & Graduate Advisor
Department of Electrical Engineering
San Jose State University, USA
Tel: (408) 924-5708
Email: Thuy.Le@sjsu.edu

3. **Professor Vincenzo Piuri**

Department of Computer Science
University of Milan, Italy
IEEE Past Vice President for Technical Activities (2016)
Tel: +39-02-5033-0066
Email: vincenzo.piuri@unimi.it

4. **Professor Trevor Martin**

Intelligent Systems Laboratory
Department of Engineering Mathematics
University of Bristol, UK
Tel: +44-117-331-5628
Email: Trevor.Martin@bristol.ac.uk

5. **Dr. Douglas Zuckerman**

Senior Scientist (Consulting), Vencore Labs (formerly Telcordia Applied Research)
IEEE Life Fellow, Communication Society Past President, and IEEE Board Director
Tel: +1 732 493 4620
Email: w2xd@aol.com