

# Weimin He

Computing and New Media Technologies  
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## EDUCATION

<b>Ph.D.</b>	Computer Science, <b>University of Texas at Arlington</b>	2008
<b>M.S.</b>	Computer Science, <b>Yunnan University</b> , China	2000
<b>B.S.</b>	Computer Science, <b>Yunnan University</b> , China	1997

## APPOINTMENTS

- 08/2020 - Present Professor, Department of Computing and New Media Technologies, University of Wisconsin-Stevens Point
- 08/2015 - 08/2020 Associate Professor, Department of Computing and New Media Technologies, University of Wisconsin-Stevens Point
- 08/2009 - 08/2015 Assistant Professor, Department of Computing and New Media Technologies, University of Wisconsin-Stevens Point
- 01/2009 - 05/2009 Adjunct Assistant Professor, Department of Computer Science, St. Cloud State University
- 01/2008 - 12/2008 Assistant Instructor, Department of Computer Science and Engineering, University of Texas at Arlington

## TEACHING

- Courses Taught
  - CIS 101 Introduction to Computing (Online)
  - CIS 102 Spreadsheet in Microsoft Excel (Online)
  - CIS 110 Object-Oriented Programming
  - CIS 120 Data Structures and Algorithms
  - CIS 210 Database Design and Implementation
  - CIS 340 Advanced Techniques in Application Development
  - CIS 345 Introduction to XML
  - CIS 345 Hot Topics in .NET Programming
  - CIS 345 Python Programming
  - CIS 397 Internship in Computing

- CIS 499 Special Work
  - APC 360 Database Management I (Online)
  - APC 410 Database Management II (Online)
  - HIMT 375 Database Structures and Management Systems (Online)
  - MSDS 715 Data Warehousing (Online)
  - CSCI 169 Computers in Society (St. Cloud State University)
  - CSCI 200 Elements of Computing (St. Cloud State University)
  - CSCI 330 Programming Language Concepts (St. Cloud State University)
  - CSE 3302 Programming Languages (University of Texas at Arlington)
- Conference Attendance
    - The 22th Annual Teaching Conference, UWSP, January, 2020
    - APC Faculty Annual Symposium, Madison, June, 2019
    - The 21th Annual Teaching Conference, UWSP, January, 2019
    - APC Faculty Annual Symposium, Madison, May, 2018
    - Open Data Science Conference, Boston, May, 2018
    - Central Wisconsin Digital and Social Media Conference, UWSP, April , 2018
    - The 20th Annual Teaching Conference, UWSP, January, 2018
    - Analytics Think Tank Seminar Series, Fall 2017 - Spring 2018
    - HIMT Faculty Annual Symposium, Madison, May, 2017
    - HIMT Faculty Annual Symposium, Madison, May, 2016
    - The 18th Annual Teaching Conference, UWSP, January, 2016
    - Digital Learning Jumpstart Conference, UWSP, August, 2015
    - HIMT Faculty Annual Symposium, Madison, May, 2015
    - The 18th Annual Teaching Conference, UWSP, January, 2015
    - HIMT Faculty Annual Symposium, Madison, May, 2014
    - The 18th Annual Teaching Conference, UWSP, January, 2014
    - The 17th Annual Teaching Conference, UWSP, January, 2013
    - The 6th Annual Critical Thinking Conference, UWSP, October, 2012
    - The 16th Annual Teaching Conference, UWSP, January, 2012
    - The 5th Annual Critical Thinking Conference, UWSP, October, 2011
    - Women & Science Opening Workshop for New STEM Educators, September, 2011
    - Teaching Assessment Academy Workshop, UWSP, April, 2011
    - The 15th Annual Teaching Conference, UWSP, January, 2011
    - The 4th Annual Critical Thinking Conference, UWSP, October, 2010

- Women & Science Opening Workshop for New STEM Educators, September, 2010
- The 14th Annual Teaching Conference, UWSP, January, 2010
- The 3rd Annual Critical Thinking Conference, UWSP, October, 2009
- Women & Science Opening Workshop for New STEM Educators, September, 2009

## **RESEARCH INTERESTS**

- XML Data Management
- Information Retrieval
- Big Data Management

## **PUBLICATIONS**

### **PAPERS IN REFEREED JOURNALS**

- [IJDIM19] **Weimin He**, Teng Lv, and Ping Yan, “Effective Evaluation of XML Queries in a Visual Environment ,” in *International Journal of Digital Information Management*, **IJDIM 2019**, Volume 17, Number 3, 2019.
- [IJESM17] **Weimin He**, Teng Lv, Ping Yan, and Aaron Salisbury, “LuceneX: A Search Engine For XML Data On Top Of Apache Lucene,” in *International Journal of Engineering, Sciences, and Management*, **IJESM 2017**, Volume 7, Number 2, 2017.
- [IAJIT17] Ping Yan, Teng Lv, and **Weimin He**, “Mapping XML to Inverted Indexed Circular Linked Lists,” in *International Arab Journal of Information Technology*, **IAJIT 2017**, Volume 14, Number 3, 2017.
- [IJDTA16] Ping Yan, Teng Lv, and **Weimin He**, “On Uncertain Probabilistic Data Modeling,” in *International Journal of Database Theory and Application*, **IJDTA 2016**, Volume 9, Number 12, 2016.
- [CMNT14] Ping Yan, Teng Lv, and **Weimin He**, “Probabilistic XML Functional Dependencies based on Possible World Model,” in *International Journal of Computer Modelling and New Technologies*, **CMNT 2014**, Volume 18, Number 10, 2014.
- [IJCIS13] Ping Yan, Teng Lv, **Weimin He** and Xiuzhen Wang, “Functional Dependency of Slight XML Variation Datasets,” in *International Journal of Computational Information Systems*, **IJCIS 2013**, Volume 9, Number 5, 2013.
- [IJNT11] Teng Lv, **Weimin He** and Ping Yan, “Synchronization Control of Delayed Cohen-Grossberg Neural Networks with Diffusion Terms,” in *International Journal of Networking Technology*, **IJNT 2011**, Volume 2, Number 4, 2011.
- [IJDIM11] **Weimin He** and Teng Lv, “Querying and Ranking XML Documents Based on Data Synopses,” in *International Journal of Digital Information Management*, **IJDIM 2011**, Volume 9, Number 5, 2011.
- [IJCIS11] Ping Yan, Teng Lv, Jingsheng Lei, and **Weimin He**, “Synchronization of Fuzzy High-order Cohen-Grossberg Neural Networks with Reaction-diffusion Term and Time-varying,” in *International Journal of Computational Information Systems*, **IJCIS 2011**, Volume 7, Number 11, 2011.

- [IJCSSE08] **Weimin He** and Leonidas Fegaras, “Answering XPath Queries with Search Predicates in Structured P2P Networks,” in *International Journal of Computer Systems Science and Engineering*, **IJCSSE**, Volume 23, Number 2, 2008.
- [JCRD99] **Weimin He**, Tong Li, Jian Liu and Zhao Jin, “A Parallel Transformation Technology Based on Hierarchical Decomposition in Interactive Environments,” in *Journal of Computer Research and Development*, **JCRD**, Volume 36, Number 6, 1999. (In Chinese)
- [JCRD99] **Weimin He** and Tong Li, “A Software Process Model Based on Recognition,” in *Journal of Computer Applications and Research*, **JCAR**, Volume 16, Number 11, 1999. (In Chinese)

#### **PAPERS IN REFEREED CONFERENCES AND WORKSHOPS**

- [ISAI20] Teng Lv, Ping Yan, and **Weimin He**, “Survey on Approximate Querying of Large-scale JSON,” in Proceedings of 5th *International Conference on Information System and Artificial Intelligence*, **ISAI 2020**, Hangzhou, China, May, 2020.
- [ISAI19] Teng Lv, Ping Yan, and **Weimin He**, “On Massive JSON Data Model and Schema,” in Proceedings of 4th *International Conference on Information System and Artificial Intelligence*, **ISAI 2019**, Changsha, China, May, 2019.
- [ISAI18] Teng Lv, Ping Yan, and **Weimin He**, “Survey on JSON data modelling,” in Proceedings of 3rd *International Conference on Information System and Artificial Intelligence*, **ISAI 2018**, Suzhou, China, June, 2018.
- [CSIT13] Ping Yan, Teng Lv, **Weimin He**, and Xiuzhen Wang, “Functional Dependencies and Lossless Decompositions of Uncertain XML Datasets,” in Proceedings of International Conference on Computer Science and Information Technology, **CSIT 2013**, Kunming, China, September, 2013, *Advances in Intelligent Systems and Computing*, Springer, Volume 255, pp. 777-783, 2014
- [ICCIS13] **Weimin He**, Teng Lv, Matthew Meis, and Ping Yan, “Visual Evaluation of XPath Queries,” in Proceedings of 5th *IEEE International Conference on Computational and Information Sciences*, **ICCIS 2013**, Shiyan, China, June, 2013.
- [ICCIS12] **Weimin He**, Matthew Meis, Teng Lv, and Ping Yan, “VXPath: A Visual XPath Query Evaluator,” in Proceedings of 4th *IEEE International Conference on Computational and Information Sciences*, **ICCIS 2012**, Chongqing, China, August, 2012.
- [XMLDM12] Teng Lv, **Weimin He** and Ping Yan, “Uncertain XML Functional Dependencies Based on Tree Tuple Models ,” in Proceedings of 4th *International Workshop on XML Data Management*, **XMLDM 2012**, Harbin, China, August, 2012, **Lecture Notes in Computer Science** 7419 Springer 2012.
- [ICADIWT11] **Weimin He** and Teng Lv, “Extending Vector Space Model for XML Ranking,” in Proceedings of 4th *IEEE International Conference on the Applications of Digital Information and Web Technologies*, **ICADIWT 2011**, Stevens Point, USA, August, 2011.
- [ICADIWT11] Teng Lv, **Weimin He** and Ping Yan, “Exponential Synchronization of Cohen-Grossberg Neural Networks with Diffusion Terms and Delays,” in Proceedings of 4th *IEEE International Conference on the Applications of Digital Information and Web Technologies*, **ICADIWT 2011**, Stevens Point, USA, August, 2011.

- [ICCEE10] **Weimin He** and Teng Lv, “Answering Tag-Term Keyword Queries over XML Documents in DHT Networks,” in Proceedings of 3rd *International Conference on Computer and Electrical Engineering*, **ICCEE 2010**, Chengdu, China, November, 2010.
- [ICCEE10] Teng Lv, **Weimin He** and Ping Yan, “A Schema-Based Method of Summarizing XML Documents,” in Proceedings of 3rd *International Conference on Computer and Electrical Engineering*, **ICCEE 2010**, Chengdu, China, November, 2010.
- [ICCSIT10] **Weimin He** and Teng Lv, “Bloom Filter-Based Keyword Search Over XML Data in Structured Peer-to-Peer Systems,” in Proceedings of 3rd *IEEE International Conference on Computer Science and Information Technology*, **ICCSIT 2010**, Chengdu, China, July, 2010.
- [ICCSIT10] Teng Lv, **Weimin He** and Ping Yan, “A Survey of Modeling Uncertain Data,” in Proceedings of 3rd *IEEE International Conference on Computer Science and Information Technology*, **ICCSIT 2010**, Chengdu, China, July, 2010.
- [DASFAA08] **Weimin He** and Leonidas Fegaras, “Approximate XML Query Answers in DHT-Based P2P Networks,” in Proceedings of 13th *International Conference on Database Systems for Advanced Applications*, **DASFAA 2008**, New Delhi, India, March, 2008, **Lecture Notes in Computer Science** 4947 Springer 2008.
- [DEXA07] **Weimin He**, Leonidas Fegaras and David Levine, “Locating and Ranking XML Documents Based on Content and Structure Synopses,” in Proceedings of 18th *International Conference on Database and Expert Systems Applications*, **DEXA 2007**, Regensburg, Germany, September, 2007, **Lecture Notes in Computer Science** 4653 Springer 2007.
- [WebDB07] **Weimin He**, Leonidas Fegaras, and David Levine, “Locating XML Documents Using Content and Structure Synopses,” in Proceedings of 10th *International Workshop on the Web and Databases*, **WebDB 2007**, in conjunction with **SIGMOD 2007**, Beijing, China, June, 2007. (Accepted)
- [BNCOD07] **Weimin He**, Leonidas Fegaras, and David Levine, “Indexing and Searching XML Documents Based on Content and Structure Synopses,” in Proceedings of 24th *British National Conference on Databases*, **BNCOD 2007**, Glasgow, UK, July, 2007, **Lecture Notes in Computer Science** 4587 Springer 2007.
- [DBISP2P06] Leonidas Fegaras, **Weimin He**, Gautam Das, and David Levine, “XML Query Routing in Structured P2P networks,” in Proceedings of 4th *International Workshop on Databases, Information Systems, and Peer-to-Peer Computing*, **DBISP2P 2006**, in conjunction with **VLDB 2006**, Seoul, Korea, September, 2006, **Lecture Notes in Computer Science** 4125 Springer 2007.

## **RESEARCH PRESENTATIONS**

- [ICCIS13] “Visual Evaluation of XPath Queries,” in **ICCIS 2013**, Shiyuan, China, June, 2013.
- [ICCIS12] “VXPath: A Visual XPath Query Evaluator,” in **ICCIS 2012**, Chongqing, China, August, 2012.
- [ICADIWT11] “Extending Vector Space Model for XML Ranking,” in **ICADIWT 2011**, Stevens Point, USA, August, 2011.

- [ICCSIT10] “Bloom Filter-Based Keyword Search Over XML Data in Structured Peer-to-Peer Systems,” in **ICCSIT 2010**, Chengdu, China, July, 2010.
- [ICCSIT10] “A Survey of Modeling Uncertain Data,” in **ICCSIT 2010**, Chengdu, China, July, 2010.
- [DASFAA08] “Approximate XML Query Answers in DHT-Based P2P Networks”, in **DASFAA 2008**, New Delhi, India, March, 2008.
- [DEXA07] “Locating and Ranking XML Documents Based on Content and Structure Synopses”, in **DEXA 2007**, Regensburg, Germany, September, 2007.
- [DBISP2P06] “XML Query Routing in Structured P2P networks”, in **DBISP2P 2006** in conjunction with **VLDB 2006**, Seoul, Korea, September, 2006.

### **GRANT APPLICATIONS**

- Educating Future Computing and Information Technology Professionals through an Online Multi-institutional Degree-completion Program, National Science Foundation, 2018 (Not Funded)
- Undergraduate Education Initiative Grant, UWSP, 2012
- Faculty Professional Development Grant, UWSP, 2010
- Faculty Professional Development Grant, UWSP, 2009
- New Faculty Start-Up Grant, UWSP, 2009

### **PROFESSIONAL ACTIVITIES**

- Conference Organization
  - Program Committee Chair: International Symposium on Electronic Engineering and Information Processing (ISEEIP 2012)
  - Program Committee Chair: International Conference on the Applications of Digital Information and Web Technologies (ICADIWT 2011)
  - General Chair: International Conference on Informatics, Cybernetics, and Computer Applications (ICICCA 2010)
  - General Chair: International Conference on the Business and Digital Enterprises (ICBDE 2010)
  - Session Chair: IEEE International Conference on Computer Science and Information Technology (ICCSIT 2010)
- Editorial Board
  - International Journal of Communications and Information Sciences (2010-Present)
  - International Journal of Digital Information Management (2010-Present)
  - International Journal of Computer Theory and Engineering (2014-Present)
- Technical Program Committee Member

- International Conference on Frontiers of Information Technology (ICFIT 2018)
- International Conference on Digital Image Processing and Biomedical Informatics (ICDIPBI 2018)
- International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP 2017)
- International Conference on Computational and Information Sciences (ICCIS 2012, ICCIS 2013, ICCIS 2014)
- International Conference on the Applications of Digital Information and Web Technologies (ICADIWT 2010, ICADIWT 2011)
- International Conference on Networked Digital Technologies (NDT 2010, NDT 2011)
- International Congress on Computer Applications and Computational Science (CACCS 2010)
- Reviewer
  - International Journal of Communications and Information Sciences(JCIS)
  - International Journal of Digital Information Management (IJDIM)
  - International Journal of Computer Theory and Engineering (IJCTE)
  - International Journal of Web Applications (IJWA)
  - WiSys AR-WiTAG Grant Application (2018-2019)
  - International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP 2017)
  - International Conference on Computational and Information Sciences (ICCIS 2012, ICCIS 2013, ICCIS 2014)
  - International Conference on the Applications of Digital Information and Web Technologies (ICADIWT 2009, ICADIWT 2010, ICADIWT 2011)
  - International Conference on Machine Learning and Computing (ICMLC 2011)
  - International Conference on Networked Digital Technologies (NDT 2010, NDT 2011)
  - International Congress on Computer Applications and Computational Science (CACCS 2010)
- Collaborative Institutional Training Initiative
  - Completed Human Subjects Research (HSR) Training Course, May, 2018
  - Completed Social-Behavioral-Educational Researchers Training Course, May, 2018
  - Completed Social and Behavioral Responsible Conduct of Research Training Course, May, 2018
- Membership
  - Senior Member of International Association of Computer Science & Information Technology
  - Member of Upsilon Pi Epsilon

## **STUDENT RESEARCH PROJECTS SUPERVISED**

- LuceneX: A Search Engine for XML Collections
  - Student Name: Aaron Salisbury
  - Project Presented at Undergraduate Research Symposium, COLS, UWSP, 2015
- XGoogle: A Search Engine for XML Data
  - Student Name: Kevin Siems
  - Project Presented at Undergraduate Research Symposium, COLS, UWSP, 2013
- VXPATH: A Visual XPath Query Evaluator
  - Student Name: Matthew Meis
  - Funding Source: Undergraduate Education Initiative, UWSP, 2012
  - Project Presented at Undergraduate Research Symposium, COLS, UWSP, 2012

## **SERVICES**

- University Level
  - Self Nomination for Member of Faculty Council Committee (2015-2017 Term)
  - Self Nomination for Member of University Strategic Planning Committee (2014-2016 Term)
  - Member of University Department Review Subcommittee (08/2011-08/2013, 08/2015-08/2017)
  - Member of University Technology Committee (08/2010-08/2011)
  - Student Marshal for the Winter Commencement, 2009
  - Faculty Marshal for the Spring Commencement, 2019
- College Level
  - Member of Dean's Advisory Committee (2009, 2010)
  - Member of Dean's Faculty Advisory Council (2015, 2016, 2017)
- Department Level
  - Academic Director of Applied Computing Program (04/2016-12/2019)
    - \* Working as the academic director from Spring 2016, initiated, planned, and developed a new degree-completion online collaborative program - Applied Computing program
    - \* Developed and has been teaching two Applied Computing courses - APC 360 and APC 410
    - \* Attended quarterly AD meetings and monthly teleconferences since the program started
  - Member of Personnel Committee(08/2015-Present)
  - Member of Curriculum Committee(08/2010-Present)
  - Member of Nominating Committee (2014, 2015, 2016, 2017)



- Member of Marketing Committee (08/2010-08/2011)
- Member of Library Subcommittee (08/2011-08/2014)
- Member of Assessment Subcommittee (2014, 2017)
- Chair of Personnel Committee(08/2018-08/2019)
- Chair of Search and Screen Committee for Data Analytics Position (2016, 2017)
- Chair of Search and Screen Committee for Web Development Position (2014, 2015, 2016)
- Member of Search and Screen Committee for Software Development Position(2013, 2014, 2015)
- Member of Search and Screen Committee for Multimedia Position (2015)
- Member of Student Award Committee in CNMT Department ( 2010, 2014, 2015, 2016, 2019)
- Department Library Representative (2011, 2012, 2013, 2014)
- Advisor for Association of Information Technology Professionals (09/2014-09/2015)
- Services on View Point Day (3 sessions for 2009-2010, 3 sessions for 2010-2011, 2 sessions for 2011-2012, 2 sessions for 2012-2013, 1 Session for 2013-2014, 3 sessions for 2018-2019, 2 sessions for 2019-2020)
- Advisor for 24 students (Fall 2020)