# Weimin He

Office: SCI B225

Phone: (715) 346-4409 Fax: (715) 346-4260

E-mail: whe@uwsp.edu

Computing and New Media Technologies University of Wisconsin-Stevens Point 2100 Main Street Stevens Point, WI 54481

## **EDUCATION**

Ph.D.	Computer Science, University of Texas at Arlington	2008
M.S.	Computer Science, Yunnan University, China	2000
B.S.	Computer Science, Yunnan University, 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/Developed
  - CIS 101 Introduction to Computing (Online)
  - CNMT 101 Introduction to Computing and Programming
  - CIS 102 Spreadsheet in Microsoft Excel (Online)
  - CIS 110 Object-Oriented Programming
  - CNMT110 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 345 NoSQL Databases
- 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

- APC Program All Faculty Meeting, July, 2023
- The 27th Annual Teaching Conference, UWSP, January, 2023
- The 26th Annual Teaching Conference, UWSP, January, 2022
- Virtual Global Conference on Sustainability in Higher Education, October, 2021
- HIMT and APC Faculty Annual Symposium, Madison, May 2021
- The 25th Annual Teaching Conference, UWSP, January, 2021
- The 24th 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

- [JPCS20] Teng Lv, Ping Yan, Hongwu Yuan, and **Weimin He**, "Spam Filter Based on Naive Bayesian Classifier," in *International Journal of Physics: Conference Series*, **JPCS 2020**, 1575 (2020) 012054.
- [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

- [ICAA21] Teng Lv, Ping Yan, Hongwu Yuan, and Weimin He, "Linked List Storage for JSON Data," in Proceedings of 2021 International Conference on Intelligent Computing, Automation and Applications, ICAA 2021, Nanjing, China, June, 2021.
- [ICAA21] Teng Lv, Ping Yan, Hongwu Yuan, and Weimin He, "Experiment Research on Spam Filter Classifier Based on Naive Bayesian Algorithm," in Proceedings of 2021 International Conference on Intelligent Computing, Automation and Applications, ICAA 2021, Nanjing, China, June, 2021.
- [ISAI20] Teng Lv, Ping Yan, Weimin He, and Tao Wang, "On Approximate Querying Large-Scale JSON Data," 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, Shiyan, 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 Multiinstitutional 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 (CACS 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 (CACS 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

- 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

- School Handbook Revision Committee (2021)
- 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, 2020, 2021, 2022, 2024)
- Member of Marketing Committee (08/2010-08/2011)
- Member of Library Subcommittee (08/2011-08/2014)
- Member of Assessment Subcommittee (2014, 2017)
- Member of Nominating Committee (Spring 2020, Spring 2021, Spring 2022, Spring 2024)
- Chair of Department Handbook Committee (Spring 2021)
- Chair of Merit Allocation Committee (Spring 2023)
- Chair of Personnel Committee (08/2018-08/2019, 08/2022/-08/2023, 08/2024-08/2025)
- Chair of Search and Screen Committee for AI/ML Position (2024)
- 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, 2020, 2021, 2022)

- 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, 2 sessions for 2020-2021, 1 session for 2021-2022, 1 session for 2022-2023, 1 session for 2023-2024)