Yixin Chen

CONTACT INFORMATION

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HIGHLIGHTS

Currently Professor at The University of Mississippi
One monograph, 80+ journal and conference publications, including Journal of Machine Learning Research, IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Image Processing, IEEE Transactions on Automatic Control, IEEE Transactions on Robotics and Automation, IEEE Transactions on Robotics, IEEE Transactions on Fuzzy Systems, IEEE Transactions on Control Systems Technology, BMC Bioinformatics, NIPS, ACM SIGMM, CVPR, ICDM, ICIP, ICRA
`https://scholar.google.com/citations?user=FL4hyLcAAAAJ&hl=en&oi=ao`

RESEARCH INTERESTS

Data mining and machine learning
Computer vision
Artificial intelligence
Biomedical informatics
Brain computer interface
Robotics and control
Soft computing

EDUCATION

Ph.D., Computer Science **August 2003**
The Pennsylvania State University, University Park, Pennsylvania USA

Ph.D., Electrical Engineering **August 2001**
M.S., Electrical Engineering **December 1999**
University of Wyoming, Laramie, Wyoming USA

M.S., Control Theory and Application **July 1998**
Tsinghua University, Beijing, China

B.S., Automatic Control **July 1995**
Beijing University of Technology, Beijing, China

ACADEMIC EXPERIENCE

Chair **July 2022 - present**
Professor **July 2017 - present**
The University of Mississippi, Department of Computer and Information Science, University, MS USA

Associate Professor **July 2010 - June 2017**
The University of Mississippi, Department of Computer and Information Science, University, MS USA

Visiting Research Scientist **June 2013 - December 2013**
Department of Computational Biology, St. Jude Children's Research Hospital, Memphis, TN USA

Assistant Professor **August 2006 - June 2010**
The University of Mississippi, Department of Computer and Information Science, University, MS USA

Member of the Graduate Faculty **August 2008 - May 2011**
The University of Alabama, Department of Computer Science, Tuscaloosa, AL USA

Assistant Professor **August 2003 - July 2006**
University of New Orleans, Department of Computer Science, New Orleans, LA USA

Assistant Professor **August 2003 - July 2006**
The Research Institute for Children, Bioinformatics Group, Children's Hospital, New Orleans, LA USA

Research Assistant **September 2002 - July 2003**
The Pennsylvania State University, Department of Computer Science and Engineering, University Park, PA USA

Summer Internship **June 2002 - August 2002**
NEC Research Institute, Princeton, NJ USA

Research Assistant **September 2001 - May 2002**
The Pennsylvania State University, Department of Computer Science and Engineering, University Park, PA USA

Research Assistant **June 2001 - August 2001**
University of Wyoming, Department of Electrical Engineering, Laramie, WY USA

Research Assistant **January 2001 - May 2001**
The Pennsylvania State University, Department of Computer Science and Engineering, University Park, PA USA

Teaching Assistant **August 2000 - December 2000**
The Pennsylvania State University, Department of Computer Science and Engineering, University Park, PA USA

Research Assistant **August 1998 - July 2000**
University of Wyoming, Department of Electrical Engineering, Laramie, WY USA

Honors and Awards

School of Engineering's Outstanding Faculty Member of the Year, The University of Mississippi, 2012

Junior Faculty Research Award, School of Engineering, The University of Mississippi, 2011

Student Travel Award, IEEE Neural Networks Society, The IEEE International Conference on Fuzzy Systems, May 25-28, 2003, St. Louis, MO USA

Student Travel Award, IEEE Neural Networks Society, 2002 World Congress on Computational Intelligence (WCCI'2002), May 12-17, 2002, Honolulu, Hawaii USA

Member of the Tau Beta Pi Engineering Honor society

Grants

CDI Type I: Collaborative Research: Machine Learning in Taxonomic Research
National Science Foundation MCB-1027989
Total $285,455.00, October 2010 – September 2015. *PI: Yixin Chen*, University of Mississippi.

Modeling and Simulation of Complex Systems
National Science Foundation (EPSCoR) EPS-0903787
Total $3,863,585.00, September 2009 – August 2016. *Co-investigator: Yixin Chen*, University of Mississippi.

The Development of Analytical Equipment and Software for Identification of Biomarkers of Respiratory Diseases
National Science Foundation
Total $72,000.00, September 2011 - August 2013. *PI: Yixin Chen*, University of Mississippi.

Combined Computational Chemistry and Computational Biology Modeling for Understanding Protein-Protein and Protein-Ligand Interactions
National Science Foundation
Total $72,388.00, January 2011 - December 2011, October 2015 - September 2016. *Co-investigator: Yixin Chen*, University of Mississippi.

Improving the Adaptive Nature of CMC to Dynamically Adjust for Different Data Types and Network Conditions
University of Mississippi
Total $12,000.00, January 2012 – December 2012. *Co-investigator: Yixin Chen*, University of Mississippi.

Purchasing LEGO Mindstorms Education Sets and Sensors for CSCI581 Robotics Course
University of Mississippi Center for Excellence in Teaching and Learning Mini-Grants
Total $1,000, January 2009 – June 2009. *PI: Yixin Chen*, University of Mississippi.

Intelligent Information Systems Laboratory for Research and Instruction
LOUISIANA BOR Enhancement Program
Total $100,000, July 2006 – June 2007. *Co-PI: Yixin Chen*, University of New Orleans.

Human Histological Image Analysis and Retrieval using Machine Learning and Statistical Modeling Approaches
LOUISIANA BOR Research Competitiveness Subprogram (RCS)
Total $112,560, July 2005 – June 2008. *PI: Yixin Chen*, University of New Orleans.

A Preliminary Study on Statistical Modeling of Histological Images
University of New Orleans, Office of Research and Sponsored Programs, Investing in Research Excellence Program (IRE)
Total $12,000, July 2005 – June 2006. *PI: Yixin Chen*, University of New Orleans.

Content-Based Image Indexing and Retrieval: A Geometric Approach
LOUISIANA EPSCoR PFUND 2004-21
Total $12,000, February 2005 – January 2006. *PI: Yixin Chen*, University of New Orleans.

Region-Based Image Understanding for Increasing the Autonomy of Rovers and Orbiters
NASA EPSCoR Developing Aerospace Research and Technology program (DART)
Total $34,354, July 2004 – October 2005. *PI: Yixin Chen*, University of New Orleans.

Publications

Refereed Journals

D. Nguyen, X. Dang, Y. Chen, Unadjusted Langevin algorithm for non-convex weakly smooth potentials, *Communications in Mathematics and Statistics*, 2023.

T. Sarkar, Y. Chen, Y. Wang, Y. Chen, F. Chen, C. R. Reaux, L. E. Moore, V. Raghavan, W. Xu, Introducing mirror-image discrimination capability to the TSR-based method for capturing stereo geometry and understanding hierarchical structure relationships of protein receptor family, *Computational Biology and Chemistry*, vol. 103, April 2023. https://doi.org/10.1016/j.compbiolchem.2023.107824

S. Kondra, F. Chen, Y. Chen, Y. Chen, C. J. Collette, W. Xu, A study of a hierarchical structure of proteins and ligand binding sites of receptors using the triangular spatial relationship-based structure comparison method and development of a size-filtering feature designed for comparing different sizes of protein structures, *Proteins: Structure, Function, and Bioinformatics*, August 2021. DOI: 10.1002/prot.26215

S. Zhang, X. Dang, D. Nguyen, D. Wilkins, and Y. Chen, Estimating Feature-Label Dependence Using Gini Distance Statistics, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 43, no. 6, pp. 1947–1963 , 2021. 10.1109/TPAMI.2019.2960358

X. Dang, D. Nguyen, Y. Chen, and J. Zhang, A New Gini Correlation between Quantitative and Qualitative Variables, *Scandinavian Journal of Statistics*, September 2020. DOI: 10.1111/sjos.12490

J. Wang, X. Wang, A. Bhat, Y. Chen, K. Xu, Y. Mo, S. Yi, and Y. Zhou, Comprehensive Network Analysis Reveals Alternative Splicing-Related lncRNAs in Hepatocellular Carcinoma, *Frontier in Genetics*, https://doi.org/10.3389/fgene.2020.00659, July 2020.

S. Zhang, J. Wang, K. Xu, M. York, Y. Mo, Y. Chen, Y. Zhou, A Comparative Study of Multiclass Feature Selection on RNAseq and Microarray Data, *International Journal of Computational Biology and Drug Design*, vol. 12, no. 2, pp. 128–142, 2019. doi: 10.1504/IJCBDD.2019.099764

S. Zhang, J. Wang, T. Ghoshal, D. Wilkins, Y. Mo, Y. Chen, Y. Zhou, lncRNA Gene Signatures for Prediction of Breast Cancer Intrinsic Subtypes and Prognosis, *Genes*, 9(2), 65; doi: 10.3390/genes9020065, 2018.

P. Gong, X. Nan, N. D. Barker, R. E. Boyd, Y. Chen, D. E. Wilkins, D. R. Johnson, B. C. Suedel and E. J. Perkins, Predicting chemical bioavailability using microarray gene expression data and regression modeling: A tale of three explosive compounds, *BMC Genomics*, vol. 17, no. 205, 10 pages, 2016.

C. Ma, Y. Chen, D. Wilkins, X. Chen, J. Zhang, An unsupervised learning approachto find ovarian cancer genes through integration of biological data, *BMC Genomics*, vol. 16(Suppl 9):S3, 9 pages, 2015.

K. Yu, X. Dang, H. Bart, Jr., and Y. Chen, Robust Model-based Learning via Spatial-EM Algorithm, *IEEE Transactions on Knowledge and Data Engineering*, vol. 27, no. 6, pp. 1670–1682, 2015.

K. Yu, X. Dang, and Y. Chen, Robustness of the Affine Equivariant Scatter Estimator Based on the Spatial Rank Covariance Matrix, *Communications in Statistics - Theory and Methods*, vol. 44, no. 5, pp. 914–932, 2015.

G. Fu, S. Liu, X. Nan, O. R. Dale, Z. Zhao, Y. Chen, D. Wilkins, S. P. Manly, S. J. Cutler, and R. J. Doerksen, Quantitative Structure-Activity Relationship Analysis and a Combined Ligand-Based/Structure-Based Virtual Screening Study for Glycogen Synthase Kinase-3, *Molecular Informatics*, vol. 33, no. 9, pp. 627–640, 2014.

S. Liu, S. Dissanayake, S. Patel, X. Dang, T. Mlsna, Y. Chen and D. Wilkins, Learning Accurate and Interpretable Models Based on Regularized Random Forests Regression, *BMC Systems Biology*, vol. 8(Suppl 3):S5, 9 pages, 2014.

Z. Zhao, G. Fu, S. Liu, K. M. Elokely, R.J. Doerksen, Y. Chen, and D. Wilkins, Drug Activity Prediction Using Multiple-instance Learning via Joint Instance and Feature Selection, *BMC Bioinformatics*, vol. 14(Suppl 14):S16, 12 pages, 2013.

S. Liu, R. Y. Patel, P. R. Daga, H. Liu, G. Fu, R. Doerksen, Y. Chen, and D. Wilkins, Combined Rule Extraction and Feature Elimination in Supervised Classification, *IEEE Transactions on Nanobioscience*, vol. 11, no. 3, pp. 228 – 236, 2012.

G. Fu, X. Nan, H. Liu, R. Y. Patel, P. R. Daga, Y. Chen, D. E. Wilkins, R. J. Doerksen, Implementation of Multiple-Instance Learning in Drug Activity Prediction, *BMC Bioinformatics*, vol. 13(Suppl 15):S3, 12 pages, 2012.

X. Nan, N. Wang, P. Gong, C. Zhang, Y. Chen, and D. Wilkins, Biomarker Discovery Using 1-Norm Regularization for MultiClass Earthworm Microarray Gene Expression Data, *Neurocomputing*, vol. 92, September, pp. 36–43, 2012.

S. Liu, Y. Chen, D. Wilkins, Large Margin Classifiers and Random Forests for Integrated Biological Prediction on Mixed Type Data, *International Journal of Bioinformatics Research*

and Applications, vol. 8, nos. 1/2, pp. 38–53, 2012.

F. Teng, Y. Chen, X. Dang, Multiclass Classification with Potential Function Rules: Margin Distribution and Generalization, *Pattern Recognition*, vol. 45, no. 1, pp. 540–551, 2012.

X. Nan, G. Fu, Z. Zhao, S. Liu, R. Y. Patel, H. Liu, P. R. Daga, R. J. Doerksen, X. Dang, Y. Chen, and D. Wilkins, Leveraging Domain Information to Restructure Biological Prediction, *BMC Bioinformatics*, vol. 12(Suppl 10):S22, 15 pages, 2011.

F. Teng, Y. Chen, A. M. Choong, S. Gustafson, C. Reichley, P. Lawhead, and D. Waddell, Square or Sine: Finding a Waveform with High Success Rate of Eliciting SSVEP, *Computational Intelligence and Neuroscience*, vol. 2011, Article ID 364385, 5 pages, 2011. doi:10.1155/2011/364385.

Y. Chen, S. Huang, H. Chen, and H. L. Bart, Joint Feature Selection and Classification for Taxonomic Problems within Fish Species Complexes, *Pattern Analysis and Applications*, vol. 13, no. 1, pp. 23–34, 2010.

C. Gao, X. Dang, Y. Chen and D. Wilkins, Graph Ranking for Exploratory Gene Data Analysis, *BMC Bioinformatics*, vol. 10(Suppl 11):S19 (14 pages), 2009.

Y. Chen, X. Dang, H. Peng, and H. L. Bart, Outlier Detection with the Kernelized Spatial Depth Function, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 31, no. 2, pp. 288–305, 2009.

J. Z. Wang, N. Boujemaa, and Y. Chen, High Diversity Transforms Multimedia Information Retrieval into a Cross-Cutting Field, *ACM SIGMOD Record*, vol. 36, no. 1, pp. 57–59, March 2007.

Y. Chen, J. Bi, and J. Z. Wang, MILES: Multiple-Instance Learning via Embedded Instance Selection, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 28, no. 12, pp. 1931–1947, 2006.

Y. Yi, J. E. McInroy, and Y. Chen, Fault Tolerance of Parallel Manipulators Using Task Space Redundancy and Kinematic Redundancy, *IEEE Transactions on Robotics*, vol. 22, no. 5, pp. 1017–1021, 2006.

V. Roussev, Y. Chen, T. Bourg, and G. G. Richard III, md5bloom: Forensic Filesystem Hashing Revisited, *Digital Investigation*, vol. 3, supplement 1, pp. 82–90, 2006.

J. Z. Wang, K. Grieb, Y. Zhang, C.-C. Chen, Y. Chen, and J. Li, Machine Annotation and Retrieval for Digital Imagery of Historical Materials, *International Journal on Digital Libraries*, (Special Issue on Multimedia Contents and Management in Digital Libraries), vol. 6, no. 1, pp. 18–29, Springer-Verlag, 2006.

Y. Zhang, C.-H. Chu, Y. Chen, H. Zha, and X. Ji, Splice Site Prediction Using Support Vector Machines with a Bayes Kernel, *Expert Systems with Applications: An International Journal*, (Special issue on Intelligent Bioinformatics Systems), vol. 30, no. 1, pp. 73–81,

2006.

Y. Chen, J. Z. Wang, and R. Krovetz, CLUE: Cluster-based Retrieval of Images by Unsupervised Learning, *IEEE Transactions on Image Processing*, vol. 14, no. 8, pp. 1187–1201, 2005.

Y. Chen and J. Z. Wang, Image Categorization by Learning and Reasoning with Regions, *Journal of Machine Learning Research*, vol. 5, pp. 913–939, 2004.

Y. Chen and J. E. McInroy, Decoupled Control of Flexure Jointed Hexapods Using Estimated Joint Space Mass-Inertia Matrix, *IEEE Transactions on Control Systems Technology*, vol. 12, no. 3, pp. 413–421, 2004.

Y. Chen and J. Z. Wang, Support Vector Learning for Fuzzy Rule-Based Classification Systems, *IEEE Transactions on Fuzzy Systems*, vol. 11, no. 6, pp. 716–728, 2003.

Y. Chen, J. E. McInroy, and Y. Yi, Optimal, Fault-Tolerant Mappings to Achieve Secondary Goals without Compromising Primary Performance, *IEEE Transactions on Robotics and Automation*, vol. 19, no. 4, pp. 680–691, 2003.

Y. Chen and J. E. McInroy, Estimation of Symmetric, Positive Definite Matrices from Imperfect Measurements, *IEEE Transactions on Automatic Control*, vol. 47, no. 10, pp, 1721–1725, 2002.

Y. Chen and J. Z. Wang, A Region-Based Fuzzy Feature Matching Approach to Content-Based Image Retrieval, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 24, no. 9, pp. 1252–1267, 2002.

Y. Chen and D. Xiao, An Extension Principle-Based Fuzzy Model and its Identification Algorithm, *ACTA AUTOMATICA SINICA*, vol. 25, no. 6, pp. 743–749, 1999. (in Chinese)

Y. Chen and Y. Chen, Comments on Fuzzy Logic Control from the Viewpoint of Engineering Application, *FUZZY SYSTEMS AND MATHEMATICS*, vol. 13, no. 2, 33–36, 1999. (in Chinese)

Y. Chen and D. Xiao, The Identification of ETSK Fuzzy Model and a Kind of Fuzzy Control Algorithm, *FUZZY SYSTEMS AND MATHEMATICS*, vol. 13, no. 1, pp. 66–75, 1999. (in Chinese)

J. Zhang and Y. Chen, Food Sensory Evaluation Employing Artificial Neural Networks, *Sensor Review*, vol. 17, no 2, 1997, pp. 150–158, 1997.

Y. Chen and Y. Chen, An Improvement in Dynamic Characteristics of Fuzzy Logic Controller, *FUZZY SYSTEMS AND MATHEMATICS*, vol. 10, no. 3, pp. 76–81, 1996. (in Chinese)

Refereed Conference Proceedings

H. Zhou, Y. Chen, D. Troendle, and B. Jang, One-class Model for Fabric Defect Detection, *International Conference on Machine Learning Techniques (MLTEC 2021)*, pp. 177-189, December 2021. DOI: 10.5121./csit.2021.112314

T. Ghoshal and Y. Chen, Detection of Local Structures in Images Using Local Entropy Information, *Proc. of ACM Southeast Conference*, pp. 114–121, April 2021, Virtual Event, USA.

B. Yang, Y. He, H. Liu, Y. Chen, and Z. Jin, A Lightweight Approach for Fault Localization based on XGBoost, *The 20th IEEE International Conference on Software Quality, Reliability, and Security (QRS)*, pp. 168–179, December 2020, Macau, China.

H. Zhou, B. Jang, Y. Chen and D. Troendle, Explore Faster RCNN for Fabric Defect Detection, *2020 Third International Conference on Artificial Intelligence for Industries (AI4I)*, pp. 52–55, September 2020, Irvine, CA, USA. DOI: 10.1109/AI4I49448.2020.00018.

Torumoy Ghoshal, Silu Zhang, Xin Dang, Dawn Wilkins, and Yixin Chen, Improving Performance of Convolutional Neural Networks via Feature Embedding, *Proc. of ACM Southeast Conference*, pp. 31–38, Kennesaw, GA, USA, April 2019.

Christopher Ma, Tina Gui, Xin Dang, Yixin Chen and Dawn Wilkins, Integration of Cancer Data through Multiple Mixed Graphical Model, The 9th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB),pp. 341–350, Washington DC, August 2018.

Christopher Ma, Xin Dang, Yixin Chen, and Dawn Wilkins, Pareto cascade modeling of diffusion networks, *Proc. of the International Joint Conference on Neural Networks*, pp. 292–298, Rio de Janeiro, Brazil, July 2018.

Silu Zhang, Yin-yuan Mo, Torumoy Ghoshal, Dawn Wilkins, Yixin Chen, and Yunyun Zhou, Novel gene selection method for breast cancer intrinsic subtypes from two large cohort study, *2017 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pp. 2198-2203, 2017, doi:10.1109/BIBM.2017.8217999

S. Zhang, Y. Chen, and D. Wilkins, A Probabilistic Approach to Multiple-Instance Learning, *13th International Symposium on Bioinformatics Research and Applications*, pp. 331–336, Hawaii, May 2017.

Z. Luo, X. Dang and Y. Chen, Label Confidence based AdaBoost Algorithm, *Proc. of the International Joint Conference on Neural Networks*, pp. 3617–3624, Anchorage, Alaska, USA, May 2017.

C. Ma, Z. Zhao, T. Gui, Y. Chen, X. Dang, D. Wilkins, A Generative Bayesian Model To Identify Cancer Driver Genes, *Proc. of the IEEE International Conference on Bioinformatics and Biomedicine*, pp. 351–356, Washington D. C., USA, November 2015.

C. Ma, Y. Chen, and D. Wilkins, Ranking of Cancer Genes In Markov Chain Model Through Integration of Heterogeneous Sources of Data, *Proc. of the IEEE International Conference*

on Bioinformatics and Biomedicine, pp. 248–253, Belfast, UK, November 2014.

S. Liu, S. Dissanayake, S. Patel, X. Dang, T. Mlsna, Y. Chen, and D. Wilkins, Rule Based Regression and Feature Selection for Biological Data, *Proc. of the IEEE International Conference on Bioinformatics and Biomedicine*, pp. 446–451, Shanghai, China, December 2013.

K. Yu, X. Dang, H. Bart, Jr., Y. Chen, Robust Finite Mixture Learning and its Application to Taxonomic Research, *2013 International Conference on Data Mining and Intelligent Information Technology Applications*, Research Notes in Information Science (RNIS), vol. 14, pp. 67–77, Jeju Island, Korea, June 2013.

J. Church, R. Schmidt, H. Bart Jr., X. Dang, and Y. Chen, Straightening 3-D Surface Scans of Curved Natural History Specimens for Taxonomic Research, *12th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2013)* (one of 20 best papers selected to publish at Springer's Studies in Computational Intelligence Series, Vol 493, Computer and Information Science), pp. 215-229, 2013.

C. Vicknair, D. Wilkins, and Y. Chen, MySQL and The Trouble with Temporal Data, *Proc. of the ACM Southeast Conference (ACMSE)*, 6 pages, Tuscaloosa, Alabama, March 2012.

J. Boyd and Y. Chen, An Open Source Stimulator for SSVEP-Based BCIs, *Proc. of the ACM Southeast Conference (ACMSE)*, 6 pages, Tuscaloosa, Alabama, March 2012.

S. Liu, R. Y. Patel, P. R. Daga, H. Liu, G. Fu, R. Doerksen, Y. Chen, and D. Wilkins, Multi-Class Joint Rule Extraction and Feature Selection for Biological Data, *Proc. of the IEEE International Conference on Bioinformatics and Biomedicine*, pp. 476–481, Atlanta, GA, USA, November 2011.

X. Nan, N. Wang, P. Gong, C. Zhang, Y. Chen, and D. Wilkins, Gene Selection Using 1-Norm Regularization for Multi-Class Microarray Data, *Proc. of the IEEE International Conference on Bioinformatics and Biomedicine*, pp. 520–524, Hong Kong, China, December 2010.

S. Liu, Y. Chen, and D. Wilkins, Large Margin Classifiers and Random Forests for Integrated Biological Prediction on Mixed Type Data, *Proc. of the 7th Annual Biotechnology and Bioinformatics Symposium (BIOT)*, pp. 11–18, Lafayette, Louisiana, October 2010.

F. Teng, A. M. Choong, S. Gustafson, D. Waddell, P. Lawhead, and Y. Chen, Steady State Visual Evoked Potentials by Dual Sine Waves, *Proc. of the ACM Southeast Conference (ACMSE)*, 6 pages, Oxford, Mississippi, April 2010.

X. Nan, Y. Chen, X. Dang, and D. Wilkins, Learning to Rank Using 1-norm Regularization and Convex Hull Reduction, *Proc. of the ACM Southeast Conference (ACMSE)*, 6 pages, Oxford, Mississippi, April 2010.

C. Vicknair, M. Macias, Z. Zhao, X. Nan, Y. Chen, and D. Wilkins, A Comparision of a Graph Database and a Relational Database: A Data Provenance Perspective, *Proc. of the*

ACM Southeast Conference (ACMSE), 6 pages, Oxford, Mississippi, April 2010.

V. Rus, X. Nan, S. Shiva, Y. Chen, Clustering of Defect Reports Using Graph Partitioning Algorithms, *Proc. of The 21st International Conference on Software Engineering and Knowledge Engineering (SEKE)*, pp. 442–445, Boston, July 2009.

J. C. Church, Y. Chen, and S. V. Rice, A Spatial Median Filter for Noise Removal in Digital Images, *Proc. of IEEE Southeast Conference (SECON)*, pp. 618–623, Huntsville, Alabama, April 2008.

Y. Chen, H. L. Bart, Jr., X. Dang, and H. Peng, Depth-Based Novelty Detection and its Application to Taxonomic Research, *Proc. of the IEEE International Conference on Data Mining (ICDM)*, pp. 113–122, Omaha, Nebraska, October 2007.

Y. Zhang, Y. Chen, and X. Ji, Motif Discovery as a Multiple-Instance Problem, *Proc. of the IEEE International Conference on Tools with Artificial Intelligence (ICTAI)*, pp. 805–809, Washington D.C., November 2006.

D. Zhao, Y. Chen, and H. Correa, Automated Classification of Human Histological Images, A Multipe-Instance Learning Approach, *Proc. of the Second IEEE Life Science Systems and Application (LSSA) Workshop*, pp. 122–123, Bethesda, Maryland, July 2006.

Y. Chen, Y. Zhang, and X. Ji, Size Regularized Cut for Data Clustering, *Advances in Neural Information Processing Systems (NIPS)* 18, MIT Press, Cambridge, MA, pp. 211–218, 2006.

B. Fu, G. G. Richard III, Y. Chen, and A. Husseiny, Some New Approaches For Preventing Software Tampering, *Proc. of the ACM Southeast Conference (ACMSE)*, pp. 655–660, Melbourne, Florida, March 2006.

Y. Chen, H. L. Bart, Jr., S. Huang, and H. Chen, A Computational Framework for Taxonomic Research: Diagnosing Body Shape within Fish Species Complexes, *Proc. of the IEEE International Conference on Data Mining (ICDM)*, pp. 593–596, Houston, Texas, November 2005.

Y. Chen, H. L. Bart, Jr., and F. Teng, A Content-Based Image Retrieval System for Fish Taxonomy, *Proc. of the ACM SIGMM International Workshop on Multimedia Information Retrieval (MIR)*, pp. 237–244, Singapore, November 2005. (invited paper)

D. Zhao, Y. Chen, and H. Correa, Statistical Categorization of Human Histological Images, *Proc. of the IEEE International Conference on Image Processing (ICIP)*, vol. III, pp. 628–631, Genova, Italy, September 2005.

Y. Zhang, C.-H. Chu, H. Zha, Y. Chen, and X. Ji, A Probabilistic Kernel for Splice Site Prediction, *Proc. of the Joint Conference on Information Sciences*, pp. 1278–1281, Salt Lake City, Utah, July 2005.

J. Bi, Y. Chen, and J. Z. Wang, A Sparse Support Vector Machine Approach to Region-Based Image Categorization, *Proc. of the IEEE International Conference on Computer*

Vision and Pattern Recognition (CVPR), vol. I, pp. 1121–1128, San Diego, California, June 2005.

Y. Chen and J. Bi, Clustering by Maximizing Sum-of-Squared Separation Distance, *Proc. of the Workshop on Clustering High Dimensional Data and its Applications (in conjunction with 2005 SIAM International Conference on Data Mining)*, pp. 1–12, Newport Beach, California, April 2005.

Y. Chen, J. Z. Wang, and R. Krovetz, Content-Based Image Retrieval by Clustering, *Proc. of ACM SIGMM International Workshop on Multimedia Information Retrieval (MIR)*, pp. 193–200, Berkeley, CA, November 2003.

Y. Chen, J. Z. Wang, and R. Krovetz, An Unsupervised Learning Approach to Content-Based Image Retrieval, *Proc. of the IEEE International Symposium on Signal Processing and its Applications (ISSPA)*, pp. 197–200, Paris, France, July 2003. (invited paper)

Y. Chen and J. E. McInroy, A Task Space Redundancy-Based Scheme for Motion Planning, *Proc. of American Control Conference (ACC)*, pp. 3435–3441, Denver, Colorado, June 2003.

Y. Chen and J. Z. Wang, A Kernel Perspective of Additive Fuzzy Systems: Classification and Function Approximation, *Proc. of the IEEE International Conference on Fuzzy Systems*, pp. 789–795, St. Louis, Missouri, May 2003.

Y. Chen and J. Z. Wang, Looking Beyond Region Boundaries: A Robust Image Similarity Measure Using Fuzzified Region Features, *Proc. of the IEEE International Conference on Fuzzy Systems*, pp. 1165–1170, St. Louis, Missouri, May 2003. (invited paper)

Y. Chen and B. M. Wilamowski, TREAT: A Trust-Region-based Error-Aggregated Training Algorithm for Multi-Layer Feedforward Neural Networks, *Proc. of the IEEE International Joint Conference on Neural Network (IJCNN)*, pp. 1463–1468, Honolulu, Hawaii, May 2002.

Y. Chen and J. E. McInroy, Estimating Symmetric, Positive Definite Matrices in Robotic Control, *Proc. of the IEEE International Conference on Robotics and Automation (ICRA)*, pp. 4269–4274, Washington D.C., May 2002.

Y. Yi, J. E. McInroy, and Y. Chen, General Over-Constrained Rigid Multibody Systems: Differential Kinematics and Fault Tolerance, *Proc. of SPIE International Symposium on Smart Structures and Materials*, vol. 4701, pp. 189–199, San Diego, CA, March 2002.

Y. Chen, J. Z. Wang, and J. Li, FIRM: Fuzzily Integrated Region Matching for Content-Based Image Retrieval, *Proc. of the ACM International Conference on Multimedia (MM)*, pp. 543–545, Ottawa, September 2001.

Y. Chen and J. E. McInroy, Identification and Decoupling Control of Flexure Jointed Hexapods, *Proc. of the IEEE International Conference on Robotics and Automation (ICRA)*, pp. 1936–1941, San Francisco, CA, April 2000.

Y. Chen and D. Xiao, Fuzzy Identification and Control Algorithms Based on an ETSK Model, *Proc. of the International Federation of Automatic Control 14th World Congress (IFAC)*, vol. K, pp. 291–296, Beijing, July 1999.

B. M. Wilamowski, Y. Chen, and A. Malinowski, Efficient Algorithm for Training Neural Networks with One Hidden Layer, *Proc. of the IEEE International Joint Conference on Neural Network (IJCNN)*, pp. 1725–1728, Washington, DC, July 1999.

Y. Chen and Y. Chen, Factor Space and Expert System of Natural Disaster Forecast, *Proc. of the International Fuzzy Systems Association World Congress (IFSA)*, pp. 719–720, 1993.

Books, Book Chapters, and Edited Volumes

Y. Chen, Support Vector Machines and Fuzzy Systems, *Soft Computing for Knowledge Discovery and Data Mining*, O. Maimon and L. Rokach (eds), pp. 215–233, Springer, 2007.

Y. Chen, V. Roussev, G. G. Richard III, and Y. Gao, Content-Based Image Retrieval for Digital Forensics, *Advances in Digital Forensics*, M. Pollitt and S. Shenoi (eds), pp. 271-282, Springer, 2005.

Y. Chen, J. Li, and J. Z. Wang, *Machine Learning and Statistical Modeling Approaches to Image Retrieval* (Monograph), Kluwer Academic Publishers, 200 pages, Dordrecht, 2004.

Thesis and Other Publications

S. Liu, Y. Chen, D. Wilkins, Evaluation of Random Forest Based Rule Learning, *The Eleventh Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 132, Stillwater, OK, March 2014.

C. Ma, Y. Chen, D. Wilkins, Identification of Cancer Driving Mutations Using a Two-hit Model Assumption, *The Eleventh Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 134, Stillwater, OK, March 2014.

Z. Zhao, G. Fu, S. Liu, K. M. Elokely, R. Doerksen, Y. Chen, D. Wilkins, Drug Activity Prediction Using Multi-Instance Learning via Joint Instance and Feature Selection, *The Tenth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 60, Columbia, MO, April 2013.

S. Liu, S. Dissanayake, S. Patel, T. Mlsna, X. Dang, Y. Chen, D. Wilkins, Rule Based Regression and Feature Selection for Biological Data, *The Tenth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 67, Columbia, MO, April 2013.

C. Ma, Y. Chen, D. Wilkins, A Comparative Study of Linear and Nonlinear Dimensionality Reduction Methods Using Gene Expression Data, *The Tenth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 117, Columbia, MO, April 2013.

T. Gui, X. Nan, D. Wilkins, Y. Chen, Classification and Feature Selection Using Hybrid Top Pairs on Microarray Data, *The Tenth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 119, Columbia, MO, April 2013.

G. Fu, X. Nan, H. Liu, R. Patel, P. Daga, K. Elokely, Y. Chen, D. Wilkins, R. Doerksen, Multiple-Instance Learning (MIL): A Framework to Identify Bioactive Conformations, *The Ninth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 57, Oxford, MS, February 2012.

P. Gong, X. Nan, N. Barker, Y. Chen, D. Wilkins, E. Perkins, Regression Models for Predicting Tissue Residue of Two Explosive Compounds using Earthworm Microarray Data, *The Ninth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 65, Oxford, MS, February 2012.

S. Liu, X. Dang, Y. Chen, D. Wilkins, Learning Rule-Based Regression Models using Regularized Random Forests, *The Ninth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 90, Oxford, MS, February 2012.

Z. Zhao, G. Fu, X. Nan, S. Liu, H. Liu, R. Doerksen, Y. Chen, D. Wilkins, Co-training in Classifying Scientific Data, *The Ninth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 104, Oxford, MS, February 2012.

X. Nan, P. Gong, N. Barker, E. Perkins, Y. Chen, D. Wilkins, Earthworm Time-Series Microarray Classification using Two-gene Expression Comparisons, *The Ninth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 112, Oxford, MS, February 2012.

S. Liu, S. Dissanayake, S. Patel, Z. Zhao, Y. Chen, D. Wilkins, T. Mlsna, Efficient Biomarker Identification using Pattern Classification Algorithms, *The Ninth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 114, Oxford, MS, February 2012.

G. Fu, S. Liu, X. Nan, Z. Zhao, Y. Chen, D. E. Wilkins, R. J. Doerksen, Implementation of Machine-Learning Algorithms for Identification and Development of Novel GSK-3β Inhibitors, *Fall 2011 ACS National Meeting, Division of Computers in Chemistry*, Denver, CO, 2011.

S. Liu, Y. Chen, D. Wilkins, R. Doerksen, Joint Rule Extraction and Feature Selection from Multi-Class Biological Data, *The Eighth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 54, College Station, TX, April 2011.

S. Liu, J. Huang, N. Wang, R.J. Doerksen, Y. Chen, D. Wilkins, Improving Glycan Classification with TF/IDF Weighting Scheme, *The Eighth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 53, College Station, TX, April 2011.

X. Nan, G. Fu, Z. Zhao, S. Liu, R.Y. Patel, H. Liu, P.R. Daga, R.J. Doerksen, Y. Chen, D. Wilkins, Leveraging Domain Information to Restructure Biological Prediction, *The Eighth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp.

35, College Station, TX, April 2011.

X. Nan, Y. Chen, D. Wilkins, N. Wang, P. Gong, C. Zhang, An Embedded Feature Selection Approach to Multiclass Gene Selection, *Proc. of the 7th Annual Biotechnology and Bioinformatics Symposium (BIOT)*, pp. 93–94, Lafayette, LA, October 2010.

F. Teng, A.-M. Choong, S. Gustafson, D. Waddell, C. Reichley, P. Lawhead, Y. Chen, Harmonics in SSVEP: Are They Evoked by the Fundamental Frequency or by the Artifacts of the Stimuli?, *The Fourth International BCI Meeting*, Asilomar, CA, May 2010.

D. Waddell, A.-M. Choong, J. Smith, F. Teng, C. Reichley, P. Lawhead, Y. Chen, Preferred Programming Languages to Illicit Steady State Visual Evoked Potentials from a CRT Monitor, *The Fourth International BCI Meeting*, Asilomar, CA, May 2010.

C. Reichley, A.-M. Choong, F. Teng, D. Waddell, P. Lawhead, S. Gustafson, Y. Chen, EEG Processing and Robotic Bio-Feedback Interfaces, *The Fourth International BCI Meeting*, Asilomar, CA, May 2010.

S. Liu, Y. Chen, and D. Wilkins, Diffusion Kernel Large Margin Random Forest Classification for Integrated Biological Prediction, *The Seventh Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 92, Jonesboro, AR, February 2010.

C. Vicknair, M. Macias, Z. Zhao, X. Nan, Y. Chen, and D. Wilkins, An Empirical Comparison of Data Management Methods for Scientific Workflow Metadata, *The Seventh Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 126, Jonesboro, AR, February 2010.

C. Gao, X. Dang, D. Wilkins, and Y. Chen, Graph Ranking for Exploratory Gene Data Analysis, *The Sixth Annual Conference of the MidSouth Computational Biology and Bioinformatics Society*, pp. 59, Starkville, MS, February 2009.

F. Teng and Y. Chen, High Dimensional Data Modeling Analysis Using Normalized Latent Space Model, *Journal of the Mississippi Academy of Sciences*, vol. 54, no. 1, pp. 89, 2009.

J. C. Church and Y. Chen, An Approximation Algorithm for Generating Neighborhood Graphs, *Journal of the Mississippi Academy of Sciences*, vol. 54, no. 1, pp. 90, 2009.

X. Nan and Y. Chen, A Probabilistic Latent Semantic Analysis Approach to Movie Rating Prediction, *Journal of the Mississippi Academy of Sciences*, vol. 54, no. 1, pp. 93, 2009.

Y. Chen, A Machine Learning Approach to Content-Based Image Indexing and Retrieval, *Ph.D. Dissertation*, Department of Computer Science and Engineering, The Pennsylvania State University, June 2003.

Y. Chen, and J. Z. Wang, Looking Beyond Region Boundaries: Region-Based Image Retrieval Using Fuzzy Feature Matching, *Proc. Multimedia Content-Based Indexing and Retrieval Workshop*, pp. 37–40, INRIA Rocquencourt, France, September 2001.

Y. Chen, Decoupling Control of Flexure Jointed Hexapods, *Ph.D. Dissertation*, Department of Electrical Engineering, University of Wyoming, June 2001.

Y. Chen, Estimation of a Hexapod's Joint Space Mass-Inertia Matrix, *MS Thesis*, Department of Electrical Engineering, University of Wyoming, December 1999.

Y. Chen, A Study on Identification and Control Methods Based on ETSK Model and Design of a Special Fuzzy Control Unit, *MS Thesis*, Department of Automation, Tsinghua University, June 1998.

J. Yi, Y. Chen, and L. Wang, The Application of Fuzzy Control in the Regulation of Constant Temperature for Liquid State CO_2, *Journal of Beijing Polytechnic University*, vol. 21, no. 4, pp. 30–38, 1995.

Talks and Posters

Rank cancer associated genes through integration of biological data, talk at *College of Physics and Information Engineering*, Fuzhou University, Fuzhou, China, July 2016.

Statistical Depth, Outlier Detection, and Ranking, talk at *College of Physics and Information Engineering, Fuzhou University*, Fuzhou, China, July 2015.

Improving Interpretability of Prediction Models, talk at *Department of Computer and Information Science, University of Alabama Birmingham*, Birmingham, Alabama, October 2012.

Improving Interpretability of Prediction Models, talk at *Center for Information Engineering Science Research (CIESR), Xi'an Jiaotong University*, Xi'an, China, July 2012.

Statistical Depth, Outlier Detection, and Ranking, talk at *Center for Information Engineering Science Research (CIESR), Xi'an Jiaotong University*, Xi'an, China, July 2012.

Learning a Rule-Based Prediction Model Using Regularized Random Forests, talk at *INFORMS Annual Meeting*, Beijing, China, June 2012.

Statistical Depth, Outlier Detection, and Ranking, talk at *International WIC Institute, Beijing University of Technology*, Beijing, July 2011.

Depth, Outlier Detection, and Ranking, talk at *Research Center On Fictitious Economy and Data Science, Chinese Academy of Sciences*, Beijing, December 2008.

Depth, Outlier Detection, and Ranking, talk at *Department of Computer Science, University of Alabama*, Tuscaloosa, October 2008.

Outlier Detection and Ranking: A Depth-based Approach, talk at *Department of Computer and Information Science, University of Mississippi*, Oxford, February 2008.

Depth, Outlier Detection, and Ranking, talk at *Department of Computer Science, University of Memphis*, Memphis, February 2008.

Statistical Depth and Outlier Detection, talk at *INFORMS Annual Meeting*, invited session on *Machine Learning Approaches to Medical Diagnosis and Health Care*, Seattle, WA, November 2007.

Depth-Based Novelty Detection, talk at *International Conference on Data Mining*, Omaha, NE, October 2007.

Multiple-Instance Learning, talk at *Department of Pharmacology and Toxicology, University of Mississippi*, Jackson, January 2007.

Multiple-Instance Learning via Embedded Instance Selection, Distinguished guest speaker, *Department of Biomedical Informatics, Arizona State University*, Tempe, April 2006.

Multiple-Instance Learning via Embedded Instance Selection, talk at *Lane Department of Computer Science and Electrical Engineering, West Virginia University*, Morgantown, March 2006.

Multiple-Instance Learning via Embedded Instance Selection, talk at *Department of Computer and Information Science, The University of Mississippi*, Oxford, February 2006.

Multiple-Instance Learning via Embedded Instance Selection, talk at *Department of Computer Science, Wayne State University*, Detroit, January 2006.

A Content-Based Image Retrieval System for Fish Taxonomy, talk at *7th ACM SIGMM International Workshop on Multimedia Information Retrieval*, Singapore, November, 2005.

A Sparse Support Vector Machine Approach to Region-Based Image Categorization, poster presentation at *IEEE International Conference on Computer Vision and Pattern Recognition*, San Diego, CA, June, 2005.

Spectral Graph Partition, talk at *Department of Electrical Engineering, University of New Orleans*, April 2005.

Clustering by Maximizing Sum-of-Squared Separation Distance, talk at *Workshop on Clustering High Dimensional Data and its Applications (in conjunction with 2005 SIAM International Conference on Data Mining)*, Newport Beach, California, April 2005.

Content-Based Image Retrieval: Machine Learning Approaches, talk at *School of Information Engineering, Zhengzhou Univeristy, Zhengzhou, P.R. China*, January 2005.

Statistical Classification of Human Histological Images, talk at *The Research Institute for Children, Children's Hospital, New Orleans*, November 2004.

Gene Selection: A Spectral Approach, talk at *Bioinformatics Group, Department of Computer Science, University of New Orleans*, April 2004.

Content-Based Image Retrieval: Machine Learning Approaches, talk at *The Research Institute for Children, Children's Hospital, New Orleans*, March 2004.

Content-Based Image Retrieval: Machine Learning Approaches, talk at *Machine Learning Group, NASA / Jet Propulsion Laboratory, Caltech*, February 2004.

Content-Based Image Retrieval: Machine Learning Approaches, talk at *Department of Electrical Engineering, University of New Orleans*, February 2004.

Singular Value Decomposition for Microarray Data Analysis, talk at *Bioinformatics Group, Department of Computer Science, University of New Orleans*, December 2003.

Machine Learning Approaches to Image Retrieval, talk at *Department of Electrical Engineering and Computer Science, Tulane University*, December 2003.

Machine Learning Approaches to Image Retrieval, talk at *Machine Vision Group, NASA / Jet Propulsion Laboratory, Caltech*, November 2003.

Content-Based Image Retrieval by Clustering, poster presentation at *the 5th ACM SIGMM International Workshop on Multimedia Information Retrieval*, Berkeley, CA, November 2003.

An Unsupervised Learning Approach to Content-Based Image Retrieval, talk at *the IEEE International Symposium on Signal Processing and its Applications*, Paris, France, July 2003.

Intelligent Indexing and Retrieval of Images: A Machine Learning Approach, talk at *Department of Computer Science, University of New Orleans*, June 2003.

A Kernel Perspective of Additive Fuzzy Systems: Classification and Function Approximation, talk at *the IEEE International Conference on Fuzzy Systems*, St. Louis, MO, May 2003.

Looking Beyond Region Boundaries: A Robust Image Similarity Measure Using Fuzzified Region Features, talk at *the IEEE International Conference on Fuzzy Systems*, St. Louis, MO, May 2003.

Intelligent Indexing and Retrieval of Images: A Machine Learning Approach, talk at *Department of Electrical and Computer Engineering, University of Wyoming*, February 2003.

An Image Classification Method Using Spectral Graph Partition, talk at *Multimedia Information Technology Research Group, School of Information Sciences and Technology, The Pennsylvania State University*, September 2002.

An Introduction to Multiple-Instance Learning, talk at *Multimedia Information Technology Research Group, School of Information Sciences and Technology, The Pennsylvania State University*, September 2002.

Spectral Clustering and Image Classification, talk at *NEC Research Institute*, July 2002.

TREAT: A Trust-Region-based Error-Aggregated Training Algorithm for Multi-Layer Feed-

forward Neural Networks, poster presentation at *the IEEE International Joint Conference on Neural Networks*, Honolulu, Hawaii, May 2002.

Support Vector Machines, talk at *Multimedia Information Technology Research Group, School of Information Sciences and Technology, The Pennsylvania State University*, January 2002.

FIRM: Fuzzily Integrated Region Matching for Content-Based Image Retrieval, poster presentation at *the ACM Multimedia Conference*, Ottawa, Canada, September 2001.

Identification and Decoupling Control of Flexure Jointed Hexapods, talk at *the IEEE International Conference on Robotics and Automation*, San Francisco, CA, April 2000.

Fuzzy Identification and Control Algorithms Based on an ETSK Model, talk at *the International Federation of Automatic Control 14th World Congress*, Beijing, China, July 1999.

Professional Services

Editorial Board

Pattern Recognition, Associate Editor

Machine Learning Techniques for Adaptive Multimedia Retrieval: Technologies Applications and Perspectives, IGI Global, Editorial Advisory Board

Panels, Program Committee and Session Chairs

IEEE International Conference on Image Processing (ICIP 2016), Program Committee

International Conference on Health Informatics (HEALTHINF 2015), Program Committee

IEEE 14th International Conference on BioInformatics and BioEngineering (BIBE 2014), Program Committee

IEEE International Conference on Image Processing (ICIP 2014), Program Committee

The 2014 IEEE International Conference on Multimedia and Expo (ICME 2014), Program Committee

13th IEEE International Conference on BioInformatics and BioEngineering (BIBE 2013), Program Committee

The 2013 IEEE International Conference on Multimedia and Expo (ICME 2013), Program Committee

2012 International Conference on Knowledge Engineering and Ontology Development (KEOD 2012), Program Committee

2012 International Conference on Systems and Informatics (ICSAI 2012), Program Committee

2012 The ACM Southeast Conference (ACM SE 2012), Program Committee

2012 International Joint Conference on Neural Networks (IJCNN 2012), special session on robust learning in kernel methods, Program Committee

The 2012 IEEE International Conference on Computer Vision and Pattern Recognition (CVPR 2012), Program Committee

The 2012 IEEE International Conference on Multimedia and Expo (ICME 2012), Program Committee

11th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2012), Program Committee

13th International Conference on Computer Vision (ICCV 2011), Program Committee

The 2011 IEEE International Conference on Multimedia and Expo (ICME 2011), Program Committee

The 2011 IADIS European Conference on Data Mining (ECDM 2011), Program Committee

10th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2011), Program Committee

The First ACM International Conference on Multimedia Retrieval (ICMR 2011), Program Committee

The 2011 International Conference on Imaging Theory and Applications (IMAGAPP 2011), Program Committee

The 2011 IEEE International Conference on Computer Vision and Pattern Recognition (CVPR 2011), Program Committee

The 2011 World Congress on Computer Science and Information Engineering (CSIE 2011), Program Committee

The 2010 ACM Multimedia International Conference (ACMMM 2010), Program Committee

The 2010 IADIS European Conference on Data Mining (ECDM 2010), Program Committee

The 11th International Conference on Multimedia & Expo (ICME 2010), Program Committee

8th ACIS International Conference on Software Engineering Research, Management and Applications (SERA2010), Program Committee

The 2010 IEEE Pacific-Rim Conference on Multimedia (IEEE-PCM 2010), Program Committee

The 2010 International World Wide Web Conference (WWW 2010), Program Committee

11th ACM International Conference on Multimedia Information Retrieval (MIR 2010), Treasurer

11th ACM International Conference on Multimedia Information Retrieval (MIR 2010), Program Committee

7th ACIS International Conference on Software Engineering Research, Management and Applications (SERA2009), Program Committee

The 2009 IEEE Pacific-Rim Conference on Multimedia (IEEE-PCM 2009), Program Committee

International Conference on Knowledge Engineering and Ontology Development (KEOD 2009), Program Committee

20th International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering (MaxEnt 2009), Organizing Committee

The 10th ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2009), Program Committee

IADIS European Conference on Data Mining (DM 2009), Program Committee

International Computer Science and Technology Conference (ICSTC-2009), Program Committee

8th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2009), Program Committee

The International Conference of Computing in Engineering, Science and Informatics (ICC2009), Program Committee

The 7th IEEE International Conference on Machine Learning and Applications (ICMLA 2008), Program Committee

The 20th IEEE International Conference on Tools with Artificial Intelligence (ICTAI-2008), Program Committee

IADIS European Conference on Data Mining (DM 2008), Program Committee

ACM International Conference on Image and Video Retrieval (CIVR 2008), Program Committee

International Conference on Computer and Information Science (ICIS 2008), Program Committee

Pacific-Rim Conference on Multimedia (PCM 2007), Program Committee

The 6th IEEE International Conference on Machine Learning and Applications (ICMLA 2007), Program Committee

The 9th ACM SIGMM International Workshop on Multimedia Information Retrieval (MIR 2007), Program Committee

The 9th International Conference on Visual Information Systems (VISUAL 2007), Program Committee

The 8th ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2007), Program Committee

Recherche d'Information Assiste par Ordinateur (RIAO 2007), Program Committee

The 18th IEEE International Conference on Tools with Artificial Intelligence (ICTAI-2006), Program Committee

The 5th IEEE International Conference on Machine Learning and Applications (ICMLA 2006), Program Committee

IEEE International Conference on Data Mining (ICDM 2006), Program Committee

The 8th ACM SIGMM International Workshop on Multimedia Information Retrieval (MIR 2006), Vice Chair & Program Committee

IEEE International Conference on Granular Computing (IEEE GrC 2006), Program Committee

NSF Information and Intelligent Systems Division 2005, Panel

Workshop on Clustering High Dimensional Data and its Applications, in Conjunction with the Fifth SIAM International Conference on Data Mining (SDM 2005), Session Chair

FUZZ-IEEE'03 (IEEE International Conference on Fuzzy Systems), Program Committee

Reviewer for Journals

ACM Multimedia Systems Journal

AI Communications Journal

Computational Statistics and Data Analysis

Computer Methods and Programs in Biomedicine

Computer Vision and Image Understanding

Distributed and Parallel Databases, An International Journal

Fuzzy Sets and Systems

IEEE Intelligent Systems

IEEE Internet Computing

IEEE Journal of Biomedical and Health Informatics

IEEE Signal Processing Letters

IEEE Transactions on Aerospace and Electronic Systems

IEEE Transactions on Affective Computing

IEEE Transactions on Circuits and Systems for Video Technology

IEEE Transactions on Fuzzy Systems

IEEE Transactions on Image Processing

IEEE Transactions on Knowledge and Data Engineering

IEEE Transactions on Medical Imaging

IEEE Transactions on Multimedia

IEEE Transactions on Neural Networks

IEEE Transactions on Pattern Analysis and Machine Intelligence

IEEE Transactions on Robotics

IEEE Transactions on Systems, Man and Cybernetics, Part B

IEE Proceedings on Vision, Image and Signal Processing

Information Processing & Management, An International Journal

Information Retrieval

Information Sciences

International Journal of Computer Mathematics

International Journal of Computers and Their Applications

International Journal of Electronic Business

International Journal of Neural Systems

ISIF Journal of Advances in Information Fusion

Journal of Electronic Imaging

Journal of Experimental & Theoretical Artificial Intelligence

Journal of Intelligent and Fuzzy Systems

Journal of Machine Learning Research

Journal of Mathematical Imaging and Vision

Journal of Neuroscience Methods

Journal of Systems and Software

Journal of Zhejiang University Science

Knowledge and Information Systems

Neurocomputing

Optics Letters

Pattern Analysis & Applications Journal

Pattern Recognition

Pattern Recognition Letters

Signal Processing: Image Communication

Soft Computing

The International Journal on Very Large Data Bases

Reviewer for Conferences and Workshops

IJCNN'14 (International Joint Conference on Neural Networks 2014)

ACC'03 (American Control Conference)

ACCV'09 (Asian Conference on Computer Vision)

ACM Multimedia'01, 03, 06 (ACM SIGMM International Multimedia Conference)

CHI'08 (ACM SIGCHI Human Factors in Computing Systems)

CVPR'09 (IEEE International Conference on Computer Vision and Pattern Recognition)

ECCV'08, 10 (European Conference on Computer Vision)

EUSFLAT'05 (International Conference of the European Society for Fuzzy Logic and Technology)

FUZZ-IEEE'03, 04, 05 (IEEE International Conference on Fuzzy Systems)

ICCV'09 (International Conference on Computer Vision)

ICIP'04, 08, 09, 16 (IEEE International Conference on Image Processing)

ICME'03 (IEEE International Conference on Multimedia & Expo)

ICTA'05 (International Conference on Technology and Automation)

IECON'02 (Annual Conference of the IEEE Industrial Electronics Society)

IEEE Workshop on Learning in Computer Vision and Pattern Recognition, (in conjunction with International Conference on Computer Vision and Pattern Recognition, 2005)

IPCCC'04 (IEEE International Performance Computing and Communications Conference)

MCBIOS'06, 09 (Annual Conference of the MidSouth Computational Biology and Bioinformatics Society)

MIR'05 (ACM SIGMM International Workshop on Multimedia Information Retrieval)

SIGKDD'05 (The ACM SIGKDD International Conference on Knowledge Discovery and Data Mining)

WWW'01 (International World Wide Web Conference)

Reviewer for Funding Agencies

Erwin Schroedinger Program of the Austrian Science Fund (FWF)

Social Sciences and Humanities Research Council of Canada

American Association for the Advancement of Science (AAAS)

Netherlands NWO Vidi-programme

U.S. National Science Foundation (NSF)

U.S. Civilian Research and Development Foundation (CRDF)

Kentucky Science and Engineering Foundation (KSEF)

Member

ACM

IEEE

IEEE Computer Society

IEEE Computational Intelligence Society

IEEE Robotics and Automation Society

Courses Taught

CSCI223: Computer Organization and Assembly Language	F10, S11, F11
CSCI300: Social Responsibility in Computer Science	F06
CSCI311/500: Models of computation	F08, F09, F12
CSCI345: Information Storage and Retrieval	S08, S10, S12, S14, F15, F21
CSCI390: Robotics	F12, S16
CSCI431: Robotics Programming	F20
CSCI433: Algorithm and Data Structure Analysis	S13, S15, S18, S19, S20, S21
CSCI487: Senior Project	F06, S09, F16
CSCI490: Robotics	F14
CSCI531: Artificial Intelligence	F07
CSCI533: Analysis of Algorithms	S12, F14, F15, F16, F21
CSCI547: Digital Image Processing	S07, S20
CSCI581: Computer Vision	F08, S11
CSCI581: Robotics	S09
CSCI582: Advanced Robotics	S10
CSCI632: Machine Learning	S16, S18, F20
CSCI691/692: Machine Learning	F06, S08, F10, S14
CSCI692: Randomized Algorithms	F09, F11, S15
CSCI692: Pattern Recognition	S13
CSCI6990: Data Mining and Machine Learning	F05
CSCI3080: Ethics in the Computing Profession	F05, S05, S06
CSCI3090: Undergraduate Seminar	F05, S05, S06
CSCI6635: Pattern Recognition	S04, S05
CSCI6633: Computer Vision	F03, F04, S06

Students Advisees	Christina Trotter	Ph.D. expected in 2024
	Arvinder Kang	Ph.D. expected in 2024
	Carla Rego	Ph.D. expected in 2023
	Torumoy Ghoshal	Ph.D. August 2020
	Silu Zhang	Ph.D. August 2019
	Chris Ma	Ph.D. May 2018
	Doris Turnage	Ph.D. August in 2016
	James C. Church	Ph.D. August 2014
	Sheng Liu	Ph.D. August 2014
	Xiaofei Nan	Ph.D. August 2012
	Fei Teng	Ph.D. August 2012
	Yucheng Zhao	M.S., May 2022
	Lizhu Chen	M.S., December 2021
	Deep Phuyal	M.S., December 2020
	Christopher Donelson	M.S., August 2019
	Melvin Corners	M.S., August 2019
	Dhruvin Patel	M.S., May 2019
	Paul Garner	M.S., December 2018
	Silu Zhang	M.S., December 2017
	Andrew Henning	M.S., May 2017
	Harsh Patel	M.S., May 2016
	Sravani Narra	M.S., May 2016
	Matt McNulty	M.S. December 2015
	Gang Fu	M.S. August 2012
	Andrew McPhail	M.S. May 2012
	Austin Pernell	M.S. May 2012
	Sheng Liu	M.S. August 2011
	Jason Boyd	M.S. December 2010
	Shengnan Dou	M.S. August 2009
	Sandeep Kosaraju	M.S. May 2008
	Chaitanya Kakarla	M.S. December 2007
	James C. Church	M.S. August 2007
	Henry Council	B.S. (senior project) May 2007
	Fei Teng	M.S., May 2006
	Avery Woods	B.S., Honors Thesis, May 2023
	Brannan Kovachev	B.S., Honors Thesis, May 2023
	Arianna Swensen	B.S., Honors Thesis, December 2022
	Aayush Dhakal	B.S., Honors Thesis, May 2021
	Mukesh Ghimire	B.S., Honors Thesis, May 2021
	Yunik Tamrakar	B.S., Honors Thesis, May 2020
	Harsh Nagarkar	B.S., Honors Thesis, May 2020
	Adhi Ravishanka	B.S., Honors Thesis, May 2017
	Aishat Aloba	B.S., Honors Thesis, May 2015
Member in the Thesis Committees	Madiligama Ralalage Madusanka Abeykoon	Ph.D., May 2023 (Chair: Likun Zhang)
	Sumeet Kulkarni	Ph.D., (Chair: Anuradha Gupta)
	Page Thorn	Ph.D., May 2023 (Chair: Gerard Buskes)

Chathurika Abeykoon	Ph.D., May 2023 (Chair: Hailin Sang)
Jennifer Toth	Ph.D., May 2023 (Chair: Sujith Ramachandran and Yi Yang)
Khaled Sabahein	Ph.D., December 2022 (Chair: Feng Wang)
Zhonghui Wang	Ph.D., December 2021 (Chair: Feng Wang)
AyoOluwa Aderibigbe	Ph.D., August 2021 (Chair: Robert J. Doerksen)
Hazim Shatnawi	Ph.D., August 2021 (Chair: Conrad Cunningham)
Achini Herath	Ph.D., December 2020 (Chair: Dawn Wilkins)
Wesley Henderson	Ph.D., May 2019 (Chair: Paul Goggans)
David Troendle	Ph.D., December 2018 (Chair: Phil Rhodes and Byunghyun Jang)
Timothy Holston	Ph.D., August 2018 (Chair: Dawn Wilkins)
Janet Nakarmi	Ph.D., May 2016 (Chair: Hailin Sang)
Nighat Yasmin	Ph.D., May 2015 (Chair: Conrad Cunningham)
Hamzeh Omari	Ph.D., May 2015 (Chair: John Daigle)
Kai Yu	Ph.D., December 2012 (Chair: Xin Dang)
Gang Fu	Ph.D., May 2012 (Chair: Robert Doerksen)
Peng Huo	Ph.D., May 2012 (Chair: Lei Cao)
Wei Liao	Ph.D., May 2012 (Chair: Clifford Ochs)
Zhizhong Shang	Ph.D., July 2011 (Chair: Walter J. Mayer)
Cuilan Gao	Ph.D., May 2010 (Chair: Xin Dang)
Graylin Jay	Ph.D., August 2009 (Chair: Randy Smith, University of Alabama)
Susan Lukose	Ph.D., December 2008 (Chair: Pamela Lawhead)
Yuanyuan Ding	Ph.D., May 2007 (Chair: Dawn Wilkins)
Hamza Zafar	M.S., August 2022 (Chair: Charles Fleming)
Yunshu Wang	M.S., May 2021 (Chair, Feng Wang)
Hao Zhou	M.S., May 2021 (Chair: Byunghyun Jang)
Nusrat Armin	M.S., December 2020 (Chair: Dawn Wilkins)
Md Main Uddin Rony	M.S., August 2019 (Chair: Naeemul Hassan)
Kyle Moore	M.S., May 2019 (Chair: Naeemul Hassan)
Christina Trotter	M.S., May 2019 (Chair: Dawn Wilkins)
Alexander Gunter	M.S., December 2018 (Chair: Matthew Morrison)
Michael Arender	M.S., August 2018 (Chair: Naemul Hassan)
Will Maxcy	M.S., December 2017 (Chair: Dawn Wilkins)
Kaleb Robbins	M.S. December 2017 (Chair: Dawn Wilkins)
Shreyasi Kokamthankar	M.S. December 2017 (Chair: Phil Rhodes)
Achini Kumari Herath	M.S., May 2017 (Chair: Conrad Cunningham)
Tong Shan	M.S., August 2016 (Chair: Feng Wang)
Andrew Henry	M.S., May 2016 (Chair: Dawn Wilkins)
Michael Williams	M.S., May 2016 (Chair: Dawn Wilkins)
Clay McLeod	M.S., May 2016 (Chair: Dawn Wilkins)
Zhonghui Wang	M.S., May 2016 (Chair: Feng Wang)
Peter Salu	M.S., December 2015 (Chair: Conrad Cunningham)
Bhavya Sangars	M.S., December 2015 (Chair: Conrad Cunningham)
Russell Barnes	M.S., August 2015 (Chair: Conrad Cunningham)
Zhaohua Yi	M.S., May 2015 (Chair: Byunghyun Jang)
Mason Zhao	M.S., May 2015 (Chair: Byunghyun Jang)
Bradley Balducci	M.S., December 2015 (Chair: Dawn Wilkins)
Cornelius Huges	M.S., May 2015 (Chair: Dawn Wilkins)
Ian Burns	M.S., May 2015 (Chair: Dawn Wilkins)

Tina Gui	M.S., August 2014 (Chair: Dawn Wilkins)
Michael Macias	M.S., August 2014 (Chair: Jianxia Xue)
Joseph Carlisle	M.S., August 2014 (Chair: Dawn Wilkins)
Li Xiong	M.S., August 2014 (Chair: Dawn Wilkins)
Blake Adams	M.S., May 2014 (Chair: Tobin Maginnis)
Bulbul Majumder	M.S., May 2014 (Chair: Byunghyun Jang)
Zeyang Su	M.S., May 2014 (Chair: Feng Wang)
Allen Thigpen	M.S., August 2013 (Chair: Dawn Wilkins)
Jing Ma	M.S., January 2013 (Chair: Conrad Cunningham)
Sai Kiran Vudutala	M.S., December 2012 (Chair: Tobin Maginnis)
Dayong Sun	M.S., December 2011 (Chair: Conrad Cunningham)
Phani Alluri	M.S., December 2011 (Chair: Conrad Cunningham)
Srinivas Jaligama	M.S., December 2011 (Chair: Tobin Maginnis)
Brian Mullins	M.S., December 2011 (Chair: Tobin Maginnis)
Pooja Anshul Saxena	M.S., May 2011 (Chair: Dawn Wilkins)
Jamie Osman	M.S., May 2011 (Chair: Dawn Wilkins)
Wei Liao	M.S., December 2010 (Chair: Conrad Cunningham)
Natha-Ek Sa-Ngaphan	M.S., August 2010 (Chair: Dawn Wilkins)
Christopher Reichley	M.S., May 2010 (Chair: Pamela Lawhead)
Vince Fermo	M.S., December 2009 (Chair: Stephen Rice)
Joseph Smith	M.S., December 2009 (Chair: Pamela Lawhead)
Chad Vicknair	M.S., December 2009 (Chair: Dawn Wilkins)
Lohith K. Odapally	M.S., August 2009 (Chair: Tobin Maginnis)
Ashish Regmi	M.S., December 2008 (Chair: Tobin Maginnis)
Madhuri Dasari	M.S., December 2008 (Chair: Stephen Rice)
Suresh K. Chelamalla	M.S., December 2008 (Chair: Conrad Cunningham)
Liang Huang	M.S., August 2008 (Chair: Dawn Wilkins)
Jianqing Sun	M.S., August 2008 (Chair: Pamela Lawhead)
David Saulnier	M.S., August 2008 (Chair: Stephen Rice)
Praneeth K. Gandham	M.S., May 2008 (Chair: Dawn Wilkins)
Jane Hsiao	M.S., December 2007 (Chair: Conrad Cunningham)
Vineeta Arya	M.S., December 2007 (Chair: Conrad Cunningham)
Indika Jayasinghe	M.S., December 2007 (Chair: Dawn Wilkins)
Roshan Shrestha	M.S., September 2007 (Chair: Dawn Wilkins)
Jian Weng	M.S., August 2007 (Chair: Conrad Cunningham)
Pramod Reddy Patlolla	M.S., August 2007 (Chair: Stephen Rice)
Mohamed Frihi	M.S., August 2007 (Chair: Dawn Wilkins)
Lei Yao	M.S., May 2007 (Chair: Lei Cao)
Kory Northrop	B.S. Honors Thesis Committee, May 2007 (Chair: Henry Bart)
Mei Zhang	M.S., December 2006 (Chair: Jianping Wang)
Feng Lin	M.S., May 2006 (Chair: Shengru Tu)
Yacine Chikhi	M.S., May 2006 (Chair: Jing Deng)
Srikanth Sendamangalam	M.S., May 2006 (Chair: Stephen Winters-Hilt)
Anand Prabhakaran	M.S., December 2005 (Chair: Stephen Winters-Hilt)
Sorinel A. Oprisan	M.S., May 2005 (Chair: Bin Fu)
Jiangpeng Shi	M.S., May 2004 (Chair: Golden G. Richard III)
Swati Adhikari	B.S. Honors Thesis, May 2020 (Chair: Phil Rhodes)
Micheal Drake	B.S. Honors Thesis, May 2020 (Chair: Feng Wang)

Jennifer Lauriello	B.S. Honors Thesis, May 2020 (Chair: Dawn Wilkins)
Dylan Devenny	B.S. Honors Thesis, May 2019 (Chair: Adam Jones)
David Rydeen	B.S. Honors Thesis, May 2018 (Chair: Dawn Wilkins)
Aamir Razi	B.S. Honors Thesis, December 2018 (Chair: Dawn Wilkins)
Kaleb Robinson	B.S. Honors Thesis, May 2015 (Chair: Dawn Wilkins)
Will Foley	B.S. Honors Thesis, May 2016 (Chair: Allison Burkette)
Eleanor Anthony	B.S. Honors Thesis, May 2016 (Chair: Gregory Heyworth)

Services

Interdisciplinary Certificate in Applied Statistics Committee	August 2015 - present
Advisor for UrbanLogiq	August 2018 - present
Engineering Faculty Advisory Council	January 2018 - present
Mississippi NSF EPSCoR RII project Steering Committee	May 2012 - April 2013
Faculty Senate	August 2007 - May 2009
Walker University Services Committee	2008 - 2009
Graduate Program Coordinator	Since 2009
Member of Graduate Committee	2006 - 2009
Department Seminar Coordinator	January 2007 to May 2009
Chair of Instructor Search Committee	2008
Faculty Search Committee	2007
Faculty Search Committee	2006 (at UNO)
Departmental Graduate Grade Appeal Committee	2005 to 2006 (at UNO)
Departmental Facilities Committee	2004 to 2006 (at UNO)

[0]Last updated on May 8, 2023.