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CURRENT TITLES AND AFFILIATIONS

- Associate Professor, Department of Biomedical Informatics, Department of Computer Science, Stony Brook University, January 2018 - present

PREVIOUS ACADEMIC AND PROFESSIONAL APPOINTMENTS

- Assistant professor, Department of Biomedical Informatics, Department of Computer Science, Stony Brook University, January 2015-December 2017
- Adjunct assistant professor, Department of Biomedical Informatics, Emory University December 2011 – December 2016
- Assistant professor, Department of Biomedical Informatics, Emory University, December 2011 – January 2015
- Senior research scientist, Center for Comprehensive Informatics, Emory University, January 2009 – September 2013
- Research scientist, Siemens Corporate Research, October 2004 – January 2009

EDUCATION

- Ph.D. in Computer Science, University of California, Los Angeles October 2004
- M.S. in Computer Science, University of California, Los Angeles December 2000
- M.S. in Engineering Physics, Tsinghua University July 1997
- B.S. in Applied Physics, Tsinghua University July 1994

RESEARCH FOCUS

Scalable data management systems, spatial and temporal data management and analytics, GIS, medical imaging informatics, population health and public health

HONORS AND AWARDS

2018 IEEE Big Data Conference Big Spatial Data Best paper award
2016 SIGSPATIAL Conference Best Poster Award
2016 The International Conference on Extending Database Technology (EDBT) Test of Time Award: “Bridging Physical and Virtual Worlds: Complex Event Processing for RFID Data Streams.”
2014 NSF CAREER Award
2014 IBM Champion in Information Management
2013 IBM Champion in Information Management
2012 Best presentation award of session, Pathology Informatics Conference
2011 Best paper award, the 31st International Conference on Distributed Computing Systems (ICDCS)
2010 Best presentation award of session, Pathology Informatics Conference
2004 UCLA Engineering Achievement Award

BIBLIOGRAPHY

Google Scholar: <http://scholar.google.com/citations?user=VB6tZFEAAAAJ&hl=en>. Advisees in the author list are marked with “*”.

Peer Reviewed Journal Publications:

1. Yifan Qi*, Fusheng Wang, Jane J. Cao and Yulee Li: *A Deep Learning Approach to Ventricular Volumetric Measurements without Image Reconstruction for Cardiovascular Magnetic Resonance*. Physiological Measurement. In Press.

2. Hanyi Yu, Nima Sharifai, Kun Jiang, [Fusheng Wang](#), George Teodoro, Alton B. Farris and Jun Kong: Artificial Intelligence based Liver Portal Tract Region Identification and Quantification with Transplant Biopsy Whole-Slide Images. *Computers in Biology and Medicine*. Volume 150, 2022.
3. Alice Shen, Fusheng Wang, Saptarshi Paul, Divya Bhuvanapalli, Jacob Alayof, Alton B. Farris, George Teodoro, Daniel J. Brat and Jun Kong: An integrative web-based software tool for multi-dimensional pathology whole-slide image analytics. *Physics in Medicine and Biology*. In Press.
4. Qiang Li, [Fusheng Wang](#), Yaobing Chen, Hao Chen, Shengdi Wu, Alton B. Farris, Yi Jiang and Jun Kong: *Virtual liver needle biopsy from reconstructed three-dimensional histopathological images: Quantification of sampling error*. *Computers in Biology and Medicine*. Volume 147, 2022.
5. Hanyi Yu, [Fusheng Wang](#), George Theodoro, John Nickerson and Jun Kong: *MultiHeadGAN: A Deep Learning Method for Low Contrast Retinal Pigment Epithelium Cell Segmentation with Fluorescent Flatmount Microscopy Images*. *Computers in Biology and Medicine*. Volume 146, 2022.
6. Kayley Abell-Hart*, Sina Rashidian, Dejun Teng, Richard N Rosenthal and [Fusheng Wang](#): *Where Opioid Overdose Patients Live Far From Treatment: Geospatial Analysis of Underserved Populations in New York State*. *JMIR Public Health and Surveillance*. 2022;8(4):e32133.
7. Dejun Teng*, Yanhui Liang, Hoang Vo, Jun Kong and [Fusheng Wang](#): *Efficient 3D Spatial Queries for Complex Objects*. *ACM Transactions on Spatial Algorithms and Systems (TSAS)*. Volume 8, Issue 2, June 2022, pp 1–26.
8. Jianyuan Deng*, Zhibo Yang, Iwao Ojima, Dimitris Samaras and [Fusheng Wang](#): *Artificial Intelligence in Drug Discovery: Applications and Techniques*. *Briefings in Bioinformatics*. Volume 23, Issue 1, January 2022, bbab430.
9. Hongyi Duanmu*, [Fusheng Wang](#), George Teodoro and Jun Kong: *Foveal Blur-Boosted Segmentation of Nuclei in Histopathology Images with Shape Prior Knowledge and Probability Map Constraints*. *Bioinformatics*. 2021.
10. Jianyuan Deng*, Wei Hou, Xinyu Dong, Janos Hajagos, Mary Saltz, Joel Saltz and [Fusheng Wang](#): *A Large-Scale Observational Study on the Temporal Trends and Risk Factors of Opioid Overdose: Real-World Evidence for Better Opioids*. *Drugs - Real World Outcomes*. 2021.
11. Xinyu Dong*, Jianyuan Deng*, Sina Rashidian*, Kayley Abell-Hart*, Wei Hou, Richard N Rosenthal, Mary Saltz, Joel H Saltz and [Fusheng Wang](#): *Identifying Risk of Opioid Use Disorder for Patients Taking Opioid Medications with Deep Learning*. *Journal of the American Medical Informatics Association (JAMIA)*. 2021, ocab043.
12. Xinyu Dong*, Jianyuan Deng*, Wei Hou, Sina Rashidian*, Kayley Abell-Hart*, Richard N Rosenthal, Mary Saltz, Joel H Saltz and [Fusheng Wang](#): *Predicting Opioid Overdose Risk of Patients with Opioid Prescriptions Using Electronic Health Records Based on Temporal Deep Learning*. *Journal of Biomedical Informatics*. 2021 Mar 9;116:103725.
13. Anthony Xiang*, Wei Hou, Sina Rashidian*, Richard N Rosenthal, Kayley Abell-Hart, Xia Zhao and [Fusheng Wang](#): *Association of Opioid Use Disorder With 2016 Presidential Voting Patterns: A Cross-Sectional Study in New York State at Census Tract Level*. *JMIR Public Health Surveill* 2021;7(4):e23426
14. Hongxiao Li, Hanyi Yu, Yong-Kyu Kim, [Fusheng Wang](#), George Teodoro, Yi Jiang, John Nickerson, and Jun Kong: *Three-Dimensional Mouse Eyeball Spherical Reconstruction from Two-Dimension Flat-Mount Microscopy Images*. *Translational Vision Science and Technology*. April 2021, Vol.10, 25.
15. Xin Chen*, Wei Hou, Sina Rashidian*, Yu Wang*, Xia Zhao, George Stuart Leibowitz, Richard N Rosenthal, Mary Saltz, Joel H Saltz, Elinor Randi Schoenfeld and [Fusheng Wang](#): *A Large-Scale Retrospective Study of Opioid Poisoning in New York State with Implications for Targeted Interventions*. *Scientific Reports*. *Scientific Reports* 11, 5152 (2021).

16. Mousumi Roy*, Jun Kong, Satyananda Kashyap, Vito Paolo Pastore, Fusheng Wang, Ken C. L. Wong and Vandana Mukherjee: *Convolutional Autoencoder Based Model HistoCAE for Segmentation of Viable Tumor Regions in Liver Whole-Slide Images*. Scientific Reports. Sci Rep 11, 139 (2021).
17. Sina Rashidian*, Kayley Abell-Hart*, Janos Hajagos, Richard Moffitt, Veena Lingam, Victor Garcia, Chao-Wei Tsai, Fusheng Wang, Xinyu Dong, Siao Sun, Jianyuan Deng, Rajarsi Gupta, Joshua, Miller, Joel Saltz, Mary Saltz: *Detecting Miscoded Diabetes Diagnosis Codes in EHR for Quality Improvement: A Temporal Deep Learning Approach*. Journal of Medical Internet Research - Medical Informatics. Vol 8, No 12 (2020): December.
18. Hannah Yao*, Sina Rashidian*, Xinyu Dong*, Hongyi Duanmu*, Richard Rosenthal and Fusheng Wang: *Detection of Suicidality Among Opioid Users on Reddit: Machine Learning-Based Approach*. Journal of Medical Internet Research. Vol 22, No 11 (2020): November.
19. Mousumi Roy*, Fusheng Wang⁺, Hoang Vo*, Dejun Teng*, George Teodoro, Alton Farris III, Eduardo Castillo-Leon, Miriam Vos and Jun Kong⁺: *Deep Learning Based Accurate Hepatic Steatosis Quantification for Histological Assessment of Liver Biopsies*. Laboratory Investigation. 100, 1367–1383 (2020).
(*Corresponding author.)
20. Alevtina Dubovitskaya*, Furqan Baig*, Zhigang Xu, Rohit Shukla*, Pratik Sushil Zambani*, Arun Swaminathan*, Md Majid Jahangir*, Khadija Chowdhry*, Rahul Lachhani*, Nitesh Idnani*, Michael Schumacher, Karl Aberer, Scott Stoller, Samuel Ryu and Fusheng Wang: *ACTION-EHR: Patient-Centric Blockchain-Based EHR Data Management for Cancer Care*. Journal of Medical Internet Research. 2020;22(8):e13598
21. Chunjie Zhou, Ali Li, Aihua Hou, Zhiwang Zhang, Zhenxing Zhang, Pengfei Dai and Fusheng Wang: *Modeling Methodology for Early Warning of Chronic Heart Failure Based on Real Medical Big Data*. Expert Systems with Applications, Volume 151, 1 August 2020.
22. Furqan Baig*, Chao Gao*, Dejun Teng*, Jun Kong and Fusheng Wang: *Accelerating Spatial Cross-Matching on CPU-GPU Hybrid Platform with CUDA and OpenACC*. Frontiers in Big Data. Vol 3, 2020.
23. Thomas Ren, Renee Cattell, Hongyi Duanmu*, Pauline Huang, Haifang Li, Rami Vanguri, Michael Z. Liu, Sachin Jambawalikar, Richard Ha, Fusheng Wang, Jules Cohen, Clifford Bernstein, Lev Bangiyev and Timothy Q. Duong: *Convolutional Neural Network Detection of Axillary Lymph Node Metastasis Using Standard Clinical Breast MRI*. Clinical Breast Cancer. VOLUME 20, ISSUE 3, E301-E308, June 01, 2020.
24. Alevtina Dubovitskaya*, Petr Novotny, Zhigang Xu and Fusheng Wang: *Applications of Blockchain Technology for Data-Sharing in Oncology: Results from Systematic Literature Review*. Oncology: International Journal of Cancer Research and Treatment. Pages 1-9. 2019.
25. Elinor Schoenfeld, George Leibowitz, Yu Wang*, Xin Chen*, Wei Hou, Sina Rashidian*, Mary M Saltz, Joel H Saltz, and Fusheng Wang: *Geographic, temporal and sociodemographic differences in opioid poisoning*. American Journal of Preventive Medicine. Volume 57, Issue 2, Pages 153–164. 2019.
26. Pengyue Zhang*, Fusheng Wang, George Teodoro, Yanhui Liang*, Mousumi Roy*, Daniel Brat and Jun Kong: *Effective nuclei segmentation with sparse shape prior and dynamic occlusion constraint for glioblastoma pathology images*. Journal of Medical Imaging. 6(1), 017502 (2019).
27. Daniel Kim*, Wei Hou, Fusheng Wang and Chrisa Arcan: *Factors Affecting Obesity and Waist Circumference Among US Adults*. Preventing Chronic Disease. Vol 16, 2019.
28. Daniel Kim*, Fusheng Wang and Chrisa Arcan: *Geographic Association Between Income Inequality and Obesity Among Adults in New York State*. Preventing Chronic Disease. Vol 15:180217, 2018.
29. *Hoang Vo, Jun Kong, *Dejun Teng, *Yanhui Liang, *Ablimit Aji, George Teodoro and Fusheng Wang: *A MapReduce Based High Performance Whole Slide Image Analysis Framework in the Cloud*. Distributed and Parallel Databases. 37 (2), 2019.

30. *Dejun Teng, Jun Kong, and Fusheng Wang: *Scalable and Flexible Management of Medical Image Big Data. Distributed and Parallel Databases*. 37 (2), 2019.
31. *Xin Chen, *Hoang Vo, *Yu Wang and Fusheng Wang: *A Framework for Annotating OpenStreetMap Objects Using Geo-tagged Tweets*. *Geoinformatica*. Volume 22, Issue 3, pp 589–613, 2018.
32. Yu Wang, Wei Hou and Fusheng Wang: *Mining Co-occurrence and Sequence Patterns from Cancer Diagnoses in New York State*. *PLOS One*. 2018 Apr 26;13(4):e0194407.
33. Xiaobo Sun, Jingjing Gao, Peng Jin, Fusheng Wang*, Zhaohui Qin*: *Optimized Distributed Systems Achieve Significant Performance Improvement on Sorted Merging of Massive VCF Files*. *GigaScience*. Volume 7, Issue 6, 1 June 2018. (* these authors contributed equally)
34. *Shuai Zheng, Salma K. Jabbour,, Shannon O'Reiley, James J. Lu, Lihua Dong, Lijuan Ding, Ying Xiao, Ning J. Yue, Fusheng Wang⁺, Wei Zou: *Automated Information Extraction on Treatment and Prognosis for Non-Small Cell Lung Cancer Radiotherapy Patients*. *Journal of Medical Internet Research*. Vol 6, No 1 (2018). (⁺shared senior authorship)
35. Raymund B. Dantes, *Shuai Zheng, James J. Lu, Michele G. Beckman, Asha Krishnaswamy, Lisa C. Richardson, Sheri Chernetsky-Tejedor and Fusheng Wang: *Improved Identification of Venous Thromboembolism from Electronic Medical Records using a Novel Information Extraction Software Platform*. *Medical Care*. 2018 Sep;56(9):e54-e60.
36. *Xiaobo Sun, William S. Pittard , Tianlei Xu, Li Chen, Michael E. Zwick, Xiaoqian Jiang, Fusheng Wang and Zhaohui Qin. *OmicSeq: A Web-based Search Engine for Exploring Omics Datasets*. *Nuclei Acids Research*, Vol. 45, Web Server Issue, 2017.
37. *Shuai Zheng, James J. Lu, Nima Ghasemzadeh, Arshed Ali Quyyumi and Fusheng Wang: *Effective Information Extraction Framework for Heterogeneous Clinical Reports Using Online Machine Learning and Controlled Vocabularies*. *Journal of Medical Internet Research - Medical Informatics*, Vol 5, No 2 (2017).
38. *Yanhui Liang, Fusheng Wang, Darren Treanor, Derek Magee, George Teodoro, *Yangyang Zhu, Jun Kong: *A Framework for 3D Vessel Analysis with Whole Slide Images of Serial Liver Sections*. In *International journal of computational biology and drug design*, Vol 9, Issue 1-2, pages 102-119, 2016.
39. *Shuai Zheng, James Lu, Christina Appin, Daniel Brat, Fusheng Wang: *Support Patient Search for Pathology Reports with Interactive Online Learning Based Data Extraction*. *Journal of Pathology Informatics*, Vol 6(1), January 2015.
40. Chunjie Zhou, Pengfei Dai, Fusheng Wang and Zhenxing Zhang: *Predicting the Passenger Demand on Bus Services for Mobile Users*. *Pervasive and Mobile Computing*. Vol. 25, January 2016, Pages 48–66. (IF: 2.3)
41. David J Foran, Tahsin Kurc, Xin Qi, Daihou Wang, Fusheng Wang, George Teodoro, Lee A.D. Cooper, Michael Nalishnik, Lin Yang and Joel H. Saltz: *Scalable analysis of Big pathology image data cohorts using efficient methods and high-performance computing strategies*. *BMC Bioinformatics*, Vol 16(1), 2015. (IF: 2.44)
42. *Shuai Zheng, Fusheng Wang and James Lu: *Enabling Ontology Based Semantic Queries in Biomedical Database Systems*. *International Journal of Semantic Computing (IJSC)*. Vol 8(1), 2014.
43. Fusheng Wang, *Cristobal Vergara-Niedermayr, Peiya Liu: *Metadata Based Management and Sharing of Distributed Biomedical Data*. *International Journal of Metadata, Semantics and Ontologies (IJMSO)*, Special Issue on "Metadata for e-Science and e-Research". Vol 9 (1), 2014.
44. Jun Kong, Lee A.D. Cooper, Fusheng Wang, Jingjing Gao, G. Teodoro, L. Scarpace, T. Mikkelsen, C. Moreno, Tahsin Kurc, Joel H. Saltz, and Daniel J. Brat. *Machine-based Morphologic Analysis of Glioblastoma using Whole-slide Pathology Images Uncovers Clinically Relevant Molecular Correlates*. *PLOS One*. 8 (11), 2013. (IF: 2.8)
45. Patrick M. Widener, Tahsin Kurc, Wenjin Chen, Fusheng Wang, Lin Yang, Jun Hu, Vijay Kumar, Vicky Chu, Lee A.D. Cooper and Jun Kong, Ashish Sharma, Tony Pan, Joel H. Saltz and David Foran: *High Performance*

Computing Techniques for Scaling Image Analysis Workflows. Applied Parallel and Scientific Computing, p67-77, 2012.

46. Lee A.D. Cooper, Jun Kong, David A. Gutman, Fusheng Wang, Jingjing Gao, Christina Appin, Sharath R. Cholleti, Tony C. Pan, Ashish Sharma, Lisa Scarpace, Tom Mikkelsen, Tahsin Kurc, Carlos S. Moreno, Daniel J. Brat, Joel H. Saltz: *Integrated Morphologic Analysis for the Identification and Characterization of Disease Subtypes*. J Am Med Inform Assoc (JAMIA), Vol 19(2), 2012. (IF: 3.4)
47. Lee A.D. Cooper, Alexis B. Carter, Alton B. Farris, Fusheng Wang, Jun Kong, David A. Gutman, Patrick Widener, Tony C. Pan, Sharath R. Cholleti, Ashish Sharma, Tahsin Kurc, Daniel J. Brat, Joel H. Saltz: *Digital Pathology: Data Intensive Frontier in Medical Imaging*. Proceedings of the IEEE 100(4): 991-1003 (2012). (IF: 9.2)
48. Jun Kong, Lee A.D. Cooper, Fusheng Wang, David A. Gutman, Jingjing Gao, Candace Chisolm, Ashish Sharma, Tony Pan, Erwin G. Van Meir, Tashin M. Kurc, Carlos S. Moreno, Daniel J. Brat and Joel H. Saltz: *Integrative, Multi-modal Analysis of Glioblastoma Using TCGA Molecular Data, Pathology Images and Clinical Outcomes*. 2011 IEEE Transactions on Biomedical Engineering. Dec; 58(12), 2011. (IF: 3.6)
49. David Gutman, J. Cobb, D. Somanna, Fusheng Wang, Tahsin Kurc, Joel H. Saltz, Daniel J. Brat, L. A.D. Cooper: *Cancer Digital Slide Archive: An Informatics Resource to Support Integrated In Silico Analysis of TCGA Pathology Data*. Journal of the American Medical Informatics Association (JAMIA). 2013 Nov 1;20(6):1091-1098 (IF: 3.4)
50. *Cristobal Vergara-Niedermayr, Fusheng Wang, Tony Pan, Tahsin Kurc, Joel H. Saltz: *Semantically Interoperable XML Data*. International Journal of Semantic Computing (IJSC). Vol 7(3), 2013.
51. Yingjie Shi, Xiaofeng Meng, Fusheng Wang, Yantao Gan: *HEDC++: An Extended Histogram Estimator for Data in the Cloud*. Journal of Computer Science and Technology (JCST), Special Issue on Cloud Data Management. 28 (6), 2013.
52. Fusheng Wang, Jun Kong, Jingjing Gao, David Alder, *Zhengwen Zou, *Bryan Katigbak, *Cristobal Vergara-Niedermayr, Tahsin Kurc and Joel H. Saltz: *A High Performance Spatial Database Based Approach for Pathology Imaging Algorithm Evaluation*. Journal of Pathology Informatics. 2013, 4:5
53. Fusheng Wang, Jun Kong, Lee Cooper, Tony Pan, Tahsin Kurc, Wenjin Chen, Ashish Sharma, Cristobal Niedermayr, Tae W Oh, Daniel Brat, Alton B Farris, David J Foran, and Joel Saltz: *A Data Model and Database for High-resolution Pathology Analytical Image Informatics*. Journal of Pathology Informatics 2011, 2:32.
54. David J. Foran, Ling Yang, Wenjin Chen, Jun Hu, Lauri A. Goodell, Michael Reiss, Fusheng Wang, Tahsin Kurc, Tony Pan, Ashish Sharma and Joel H. Saltz: *ImageMiner: Comparative Analysis of Tissue Microarrays Using Content-based Image Retrieval, High-Performance Computing, and Grid Technology*. J Am Med Inform Assoc. (JAMIA) 2011 Jul 1;18(4):403-15. (IF: 3.4)
55. Lee A.D. Cooper, Jun Kong, David Gutman, Fusheng Wang, Sharath Cholleti, Tony Pan, Patrick Widener, Ashish Sharma, Tom Mikkelsen, Adam Flanders, Daniel L. Rubin, Ervin V. Meir, Tahsin Kurc, Carlos Moreno, Daniel J. Brat, Joel H. Saltz: *An Integrative Approach for In Silico Glioma Research*. IEEE Transactions on Biomedical Engineering, 2011 Oct; 57(10):2617-21. (IF: 3.6)
56. Fusheng Wang, *Shaorong Liu and Peiya Liu: *A Temporal RFID Data Model for Querying Physical Objects*. Journal of Pervasive and Mobile Computing, Volume 6, Issue 3, June 2010, Pages 382-397. (IF: 2.3)
57. Fusheng Wang, S. Liu and Peiya Liu: *Complex RFID Event Processing*. The International Journal on Very Large Data Bases (VLDBJ). Volume 18, Number 4 / August, 2009. (IF: 4.3)
58. Fusheng Wang, Carlo Zaniolo and Xin Zhou: *ArchIS: An XML-Based Approach to Transaction-Time Temporal Database Systems*. The International Journal on Very Large Data Bases (VLDBJ). Volume 17, Number 6 / November, 2008. (IF:4.3)

59. Fusheng Wang and Carlo Zaniolo, *An XML-Based Approach to Publishing and Querying the History of Databases*. World Wide Web: Internet and Web Information Systems, Kluwer, Vol.8, No.3, September, 2005. p233-259.

Peer Reviewed Conferences and Workshop Publications:

60. Furqan Baig, Pradeep Nalluri, Dejun Teng, Jun Kong and Fusheng Wang: *SPEAR-Board: Cross-Platform Interactive Spatio-Temporal Big Data Analytics* (Demo Paper). To Appear in the 30th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL 2022). November 1-4, 2022. Seattle, USA.
61. Weimin Lyu, Xinyu Dong*, Rachel Wong, Songzhu Zheng, Kayley Abell Hart*, Fusheng Wang and Chao Chen: *A Multimodal Transformer: Fusing Clinical Notes with Structured EHR Data for Interpretable In-Hospital Mortality Prediction*. To Appear in Proceedings of AMIA Annual Symposium. November 5 - 9, 2022, Washington, DC, USA.
62. Zhi Li, Maozheng Zhao, Dibyendu Das, Hang Zhao, Yan Ma, Wanyu Liu, Michel Beaudouin-Lafon, Fusheng Wang, IV Ramakrishnan and Xiaojun Bi: *Select or Suggest? Reinforcement Learning-based Method for High-Accuracy Target Selection on Touchscreens*. To Appear in Proceedings of ACM CHI Conference on Human Factors in Computing Systems 2022 (CHI 2022). Apr 30 – May 6, New Orleans, USA.
63. Dejun Teng*, Furqan Baig*, Vo Hoang*, Yanhui Liang*, Jun Kong and Fusheng Wang: *3DPro: Querying Complex Three-Dimensional Data with Progressive Compression and Refinement*. To Appear in Proceedings of the 25th International Conference on Extending Database Technology (EDBT 2022). March 29-April 1, 2022. Edinburgh, UK.
64. Maozheng Zhao, Henry Huang, Zhi Li, Rui Liu, Wenzhe Cui, Kajal Toshniwal, Ananya Goel, Andrew Wang, Xia Zhao, Sina Rashidian, Furqan Baig, Khiem Phil, Shumin Zhai, IV Ramakrishnan, Fusheng Wang, Xiaojun Bi: *GEyeSayCorrect: Eye Gaze and Voice Based Hands-free Text Correction for Mobile Devices*. In Proceedings of the 27th Annual Conference on Intelligent User Interfaces (IUI 2022). March 22-25, 2022, Helsinki, Finland.
65. Siao Sun, Fusheng Wang, Sina Rashidian, Tahsin Kurc, Kayley Abell-Hart, Janos Hajagos, Wei Zhu, Mary Saltz and Joel Saltz: *Generating Longitudinal Synthetic EHR Data with Recurrent Autoencoders and Generative Adversarial Networks*. In Proceedings of the 7th International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2021). August 20, 2021.
66. Yu Wang, Ziqiao Guan, Wei Hou and Fusheng Wang: *TRACE: Early Detection of Chronic Kidney Disease Onset with Transformer-Enhanced Feature Embedding*. In Proceedings of the 7th International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2021). August 20, 2021.
67. Fiona Murphy, Kayley Abell-Hart and Fusheng Wang: *A Fine-grain Geospatial and Demographic Analysis of Breast Cancer Patterns in New York State*. IEEE BigData 2021 REU Symposium. December 15, 2021.
68. Dejun Teng, Akshay Nehe, Prajeeth Emanuel, Furqan Baig, Jun Kong and Fusheng Wang: *GPU-based Real-time Contact Tracing at Scale*. In Proceedings of the 29th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2021), November 2-5, 2021, Beijing, China.
69. Zhi Li, Maozheng Zhao, Yifan Wang, Sina Rashidian, Furqan Baig, Rui Liu, Wanyu Liu, Michel Beaudouin-Lafon, Brooke Ellison, Fusheng Wang, IV Ramakrishnan and Xiaojun Bi: *BayesGaze: A Bayesian Approach to Eye-Gaze Based Target Selection*. In Graphics Interface, May 27 – 28, 2021. Vancouver, British Columbia, Canada.
70. Hongyi Duanmu, Shristi Bhattarai, Hongxiao Li, Chia Cheng Cheng, Fusheng Wang, George Teodoro, Emiel A.M. Janssen, Keerthi Gogineni, Preeti Subhedar, Ritu Aneja and Jun Kong: *Spatial Attention-based Deep Learning System for Breast Cancer Pathological Complete Response Prediction with Serial Histopathology Images in Multiple Stains*. The 24th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2021). September 27 – October 1, 2021. Strasbourg, France.

71. Dejun Teng, Furqan Baig, Qiheng Sun, Jun Kong and Fusheng Wang: *IDEAL: a Vector-Raster Hybrid Model for Efficient Spatial Queries over Complex Polygons*. In Proceedings of the 22nd IEEE International Conference on Mobile Data Management. June 15 - June 18, 2021.
72. Pangpang Liu, Fusheng Wang, George Teodoro, Jun Kong: *Histopathology Image Registration by Integrated Texture and Spatial Proximity based Landmark Selection and Modification*. In Proceedings of the 2021 IEEE International Symposium on Biomedical Imaging (ISBI 2021), April 13-16, 2021.
73. Aurelie Akossi, Fusheng Wang, George Teodoro, Jun Kong: *Image Registration with Optimal Regularization Parameter Selection by Learned Auto Encoder Features*. In Proceedings of the 2021 IEEE International Symposium on Biomedical Imaging (ISBI 2021), April 13-16, 2021.
74. Furqan Baig, Dejun Teng, Jun Kong and Fusheng Wang: *SPEAR: Dynamic Spatio-Temporal Query Processing over High Velocity Data Streams*. In Proceedings of the 37th IEEE International Conference on Data Engineering, Apr 19-22, 2021, Chania, Greece.
75. Hongyi Duanmu, Pauline Boning Huang, Srinidhi Brahmavar, Stephanie Lin, Thomas Ren, Jun Kong, Fusheng Wang* and Tim Duong*: *Prediction of Pathological Complete Response to Neoadjuvant Chemotherapy Using Deep Learning with Integrative Imaging, Molecular and Demographic Data*. In Proceedings of Medical Image Computing and Computer Assisted Interventions 2020 (MICCAI 2020), October 4 - 8, 2020, Lima, Peru. (*: Corresponding authors.)
76. Sina Rashidian, Fusheng Wang, Richard Moffitt, Victor Garcia, Anurag Dutt, Wei Chang, Vishwam Pandya, Janos Hajagos, Mary Saltz and Joel Saltz: *HealthGAN: Towards Sharp and Smooth Synthetic EHR Data Generation*. In Proceedings of 2020 International Conference on Artificial Intelligence in Medicine (AIME 2020).
77. Hongyi Duanmu, Jinkoo Kim, Praitayini Kanakaraj, Andrew Wang, John Joshua, Jun Kong and Fusheng Wang: *Automatic Brain Organ Segmentation with 3D Fully Convolutional Neural Network for Radiation Therapy Treatment Planning*. In Proceedings of 2020 IEEE 17th International Symposium on Biomedical Imaging (ISBI). Apr 2-7, 2020, Iowa City, Iowa, USA.
78. Jianyuan Deng and Fusheng Wang: *An Informatics-based Approach to Identify Key Pharmacological Components in Drug-Drug Interactions*. In Proceedings of AMIA Informatics Summit, March 23 – March 26, 2020, Houston, TX, USA.
79. Xinyu Dong*, Sina Rashidian*, Yu Wang*, Janos Hajagos, Jun Kong, Mary Saltz, Joel Saltz and Fusheng Wang: *Machine Learning Based Opioid Overdose Prediction Using Electronic Health Records*. In AMIA Annual Symposium 2019, November 16-20, Washington DC, USA.
80. Alevtina Dubovitskaya, Petr Novotny, Scott Thiebes, Ali Sunyaev, Michael Ignaz Schumacher, Zhigang Xu and Fusheng Wang: *Intelligent Healthcare Data Management using Blockchain: Current Limitation and Future Research Agenda*. To appear in Proceedings of the Fifth VLDB Workshop on Data Management and Analytics for Medicine and Healthcare. August 30, 2019, Los Angeles, CA, USA.
81. Xiaoyuan Guo, Fusheng Wang, George Teodoro, Alton Farris and Jun Kong: *Liver Steatosis Segmentation with Deep Learning Methods*. In Proceedings of IEEE International Symposium on Biomedical Imaging (ISBI), Venice, Italy, April 8 - 11, 2019.
82. Sina Rashidian*, Janos Hajagos, Richard A. Moffitt, Fusheng Wang, Xinyu Dong*, Kayley Abell-Hart, Kimberly M. Noel, Rajarsi R. Gupta, Mathew A. Tharakan, Joel H. Saltz, Mary M. Saltz: *Deep Learning on Electronic Health Records to Improve Disease Coding Accuracy*. In Proceedings of AMIA 2019 Informatics Summit. March 25-28, 2019, San Francisco, California, USA.
83. Sina Rashidian*, Janos Hajagos, Richard A. Moffitt, Fusheng Wang, Xinyu Dong*, Kayley Abell-Hart, Kimberly M. Noel, Rajarsi R. Gupta, Mathew A. Tharakan, Joel H. Saltz, Mary M. Saltz: *Disease phenotyping using deep learning: A diabetes case study*. In Proceedings of NIPS 2018 Workshop on Machine Learning for Health (NIPS ML4H 2018). December 8, 2018, Montreal, Canada.

84. Furqan Baig* and Fusheng Wang: *Blockchain Enabled Distributed Data Management: a Vision*. In Proceedings of the First International Workshop on Blockchain and Data Management (Co-located with ICDE 2019). April 8, 2019, Macau SAR, China.
85. Chao Gao*, Furqan Baig*, Hoang Vo*, Yangyang Zhu* and Fusheng Wang: *Accelerating Cross-Matching Operations of Geospatial Datasets using a CPU/GPU Hybrid Platform*. In Proceedings of the 3rd International Workshop on Big Spatial Data (in conjunction with IEEE Big Data 2018). December 10-13, 2018, Seattle, Washington, USA. (Best paper award.)
86. Sina Rashidian*, Xinyu Dong*, Shubham Kumar Jain* and Fusheng Wang: *EaserGeocoder: Integrative Geocoding with Machine Learning*. Demo Paper. In Proceedings of ACM SIGSPATIAL 2018, November 6 - 9, 2018. Seattle, Washington, USA.
87. Yanhui Liang*, Hoang Vo*, Jun Kong and Fusheng Wang: *iSPEED: an Scalable and Distributed In-Memory Based Spatial Query System for Large and Structurally Complex 3D Data*. Demo Paper. In Proceedings of the 44th International Conference on Very Large Data Bases (VLDB 2018), August 27-31, 2018, Rio de Janeiro, Brazil.
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6. *Shuai Zheng, Raymund Dantes, Sheri C. Tejedor, James J. Lu, Michele Beckman, Asha Krishnaswamy, Lisa Richardson, Fusheng Wang: *Improved Identification of Venous Thromboembolism from Electronic Medical Records using Information Extraction*. In Proceedings of AMIA 2015 Annual Symposium. San Francisco, CA, Nov 14-18, 2015.
7. *Shuai Zheng, Fusheng Wang, Hua Gan, James Lu, Salma K. Jabbour, Ning J. Yue and Wei Zou: *Patient Treatment and Prognosis Information Extraction with Adaptive Self Learning Medical Form Generating System*. The 56th Conference for American Society for Radiation Oncology, San Francisco, CA, September 14-17, 2014.
8. *Shuai Zheng, James J. Lu, Daniel J. Brat, Fusheng Wang: *Adaptive Learning Based Data Extraction for Patient Identification Search from Pathology Reports*. Pathology Informatics Summit, Pittsburgh, PA, May 13 – May 16, 2014.
9. *Hoang Vo, *Dejun Teng, *Yanhui Liang, *Ablimit Aji, Jun Kong, Fusheng Wang. *A MapReduce Based High Performance Whole Slide Image Analysis Framework in the Cloud*. Pathology Informatics Summit, Pittsburgh, PA, May 13 – May 16, 2014.
10. Jun Kong, Lee A.D. Cooper, Fusheng Wang, Jingjing Gao, George Teodoro, Lisa Scarpace, Tom Mikkelsen, Carlos S. Moreno, Joel H. Saltz, and Daniel J. Brat: *Machine-based Classification of Oligodendroglioma Component in Glioblastoma using Large-scale Microscopic Image Analysis Uncovers Oligodendroglial Molecular Signatures*. The TCGA Scientific Symposium. Crystal City, VA, USA, November 27-28, 2012.
11. Lee AD Cooper, Christina Appin, Rami Yacoub, David A Gutman, Hyun Ju Choi, Jun Kong, Fusheng Wang, Carlos S Moreno, Robin Bostick, Daniel J Brat, Joel H Saltz: *Active Learning for Pathology Image Analysis*. Pathology Informatics Conference, Pittsburgh, Oct 9-12, 2012.
12. *Ablimit Aji, Qiaoling Liu, Fusheng Wang, Tahsin Kurc and Joel H. Saltz: *MIGIS: High Performance Spatial Query System for Pathology Imaging Analytics*. Pathology Informatics Conference, Pittsburgh, Oct 9-12, 2012.
13. Lee A.D. Cooper, Rami Yacoub, David A. Gutman, Fusheng Wang, Carlos S. Moreno, Daniel J. Brat, Roberd M. Bostick, Joel H. Saltz: *Quantitative imaging of protein expression using multiplex quantum dot immunohistochemistry*. American Association for Cancer Research Annul Meeting, Chicago, IL, April 4, 2012.

14. Jingjing Gao, Jun Kong, Fusheng Wang, Tahsin Kurc, Lance Waller, Joel H. Saltz: *An Accuracy Validation Framework for Automated Pathology Image Segmentation and Classification Algorithms*. Pathology Informatics Conference: Pittsburgh, PA, USA, Oct 4-7, 2011.
15. Fusheng Wang: *High Performance Data Management and Queries for Analytical Medical Imaging Informatics*. Data Intensive Research and XLDB Europe joint Workshop. Edinburgh, UK, June 7-10, 2011.
16. Jun Kong, Lee A.D. Cooper, Candace Chisolm, Fusheng Wang, Carlos Moreno, Tahsin Kurc, Daniel Brat and Joel H. Saltz: *Computer-Based Classification of Nuclei in Gliomas*. USCAP 2011 annual meeting, San Antonio, TX, February 26-March 4, 2011.
17. Fusheng Wang, Tony Pan, Tahsin Kurc, Ashish Sharma, Joel H. Saltz, W. Chen, V. Chu, J. Hu, L. Yang and David J. Foran: *Modeling and Managing Annotation and Markup for Pathology and Microscopy Images*. In Proc. of AMIA 2010 Annual Symposium. Washington DC, November 13-17, 2010.
18. Joel H. Saltz, Fusheng Wang, Tony Pan, Tahsin Kurc, Ashish Sharma, Joel H. Saltz, Wenjin Chen, Vicky Chu, Jun Hu, Ling Yang and David J. Foran: *High-throughput Microscopy Image Analysis for Deep Integrative In Silico Study of Brain Tumors*. Poster in CTSA Annual Informatics Meeting, Washington DC, October 13-14, 2010.
19. Fusheng Wang et. al.: *Developing Data Model Standards and Databases for Pathology Analytical Imaging*, Pathology Informatics, Boston, MA, September 19-22, 2010.
20. Tony Pan, Fusheng Wang, Justin Permar, Cristobal Vergara Niedermayr, Ashish Sharma, Tahsin Kurc, Joel H. Saltz: *xService: a Framework for Developing Interoperable caGrid Data Services for XML Data*. NCI caBIG Annual Meeting, Washington DC, September, 2010.

Conference reports:

1. Shuai Ma, Xiaofeng Meng, and Fusheng Wang: *Report on the Fourth International Workshop on Cloud Data Management*. SIGMOD Record, March 2013. ACM SIGMOD Record, Vol. 43(2), 53-56, 2014.
2. Xiaofeng Meng, Fusheng Wang, Adam Silberstein: *Report on the Fourth International Workshop on Cloud Data Management*. ACM SIGMOD Record, Vol. 42 (1), March 2013.
3. Xiaofeng Meng and Fusheng Wang: *The First Extremely Large Database Conference at Asia*. Conference Report, ACM SIGMOD Record, Vol. 41(4), December 2012.

PATENTS

- Y. Liang, F. Wang and H. Vo: *System and Method Associated with Progressive Spatial Analysis of Prodigious 3D Data Including Complex Structures*. United States Patent No. 11,188,738. November 30, 2021.
- Zhaohui Qin, Fusheng Wang and Steve Pittard: *Methods, systems and computer readable storage media for generating quantifiable genomic information and results*. United States Patent No. 10394828. Issued on August 29, 2019.
- Fusheng Wang: *Collaborative Data and Knowledge Integration*. US Patent No. 8,239,455, Issued on Aug 7, 2012.
- Fusheng Wang, Shaorong Liu and Peiya Liu: *Method and Apparatus for Complex RFID Event Processing*. US Patent No. 7,668,794, Issued on Feb 23, 2010.
- Fusheng Wang and Peiya Liu, *Systems, Devices, and Methods for Managing RFID Data*. United States Patent No. 7,481,368, Issued on Jan 27, 2009.

FORMAL TEACHING

- Instructor, Imaging Informatics (BMI513), Fall 2020
Department of Biomedical Informatics, Stony Brook University
- Instructor, Imaging Informatics (BMI513), Spring 2020
Department of Biomedical Informatics, Stony Brook University
- Instructor, Database Systems (CSE532), Spring 2020
Department of Computer Science, Stony Brook University

- Instructor, Database Systems (CSE532), Spring 2019
Department of Computer Science, Stony Brook University
- Instructor, Medical Imaging Informatics (BMI513), Fall 2018
Department of Biomedical Informatics, Stony Brook University
- Instructor, Introduction to Biomedical Informatics (CSE393), Spring 2018
Department of Computer Science, Stony Brook University
- Instructor, Seminar in Databases (CSE644), Fall 2016
Department of Computer Science, Stony Brook University
- Instructor, Database Systems (CSE532), Fall 2016
Department of Computer Science, Stony Brook University
- Instructor, Database Systems (CSE532, Ph.D. course), Fall 2015
Department of Computer Science, Stony Brook University
- Instructor, Database Systems (CS377, undergraduate course), Fall 2013
Department of Mathematics and Computer Science, Emory University
- Instructor, Database Systems (CS554, graduate course), Spring 2013
Department of Mathematics & Computer Science, Emory University
- Instructor, Advanced Database Systems (CS730R, graduate course), Spring 2011
Department of Mathematics & Computer Science, Emory University

SUPERVISORY TEACHING

Ph.D. student supervising:

Current Ph.D. students:

- | | |
|---|--------------|
| • Lu Chen, Computer Science, Stony Brook University | 2022-present |
| • Fatemeh Aslan Beigi, Computer Science, Stony Brook University | 2021-present |
| • Shi Zhan, Computer Science, Stony Brook University | 2021-present |
| • Rui Liu, Computer Science, Stony Brook University | 2020-present |
| • Jianyuan Deng, Biomedical Informatics, Stony Brook University | 2019-present |
| • Yifan Qi, Computer Science, Stony Brook University | 2019-present |
| • Kimon Stathakos, Biomedical Informatics, Stony Brook University | 2019-present |
| • Xinyu Dong, Computer Science, Stony Brook University | 2018-present |
| • Mousumi Roy, Computer Science, Stony Brook University | 2017-present |

Graduated Ph.D.s:

- Hongyi Duanmu, Computer Science, Stony Brook University. Graduation: May 2022. First employment: Xsense.ai
- Dejun Teng, Ph.D., Computer Science, Stony Brook University. Graduation: October 2021. Shandong University, China
- Furqan Baig, Ph.D. Computer Science, Stony Brook University. Graduation: January 2021. First employment: UIUC.
- Sina Rashidian, Ph.D., Computer Science, Stony Brook University, Graduation: December 2020. First employment: Verily.
- Yu Wang, Ph.D., Computer Science, Stony Brook University. Graduation: November 2020. First employment: Google.
- Hoang Vo, Ph.D. Computer Science, Stony Brook University. Graduation: July 2019. First employment: Pitney Bowes.
- Pengyue Zhang, Ph.D., Computer Science, Stony Brook University. Graduation: July 2019. First employment: XPeng Motors.
- Xin Chen, Ph.D., Stony Brook University. Graduation: December 2018.
- Yanhui Liang, Ph.D., Biomedical Informatics, Stony Brook University. Graduation: December, 2017. First employment: Google Research.
- Abulimiti Aji, Ph.D., Computer Science and Informatics, Emory University. Graduation: October, 2014. First employment: HP Labs.

- Shuai Zheng, Ph.D. (co-advisee, with James Lu), Computer Science and Informatics, Emory University. Graduation: May 2015. First employment: Centers for Disease Control and Prevention (CDC).

M.S. student supervising:

Active:

Ajjikuttira, Gagan Ganapathy Sudhir

Batwal, Omkar Sandeep

Dayani, Ayush

Gupta, Abhimanyu Kumar

Kurmadasu, Nikhil

Lobo, Ashley

Pannu, Sumeet

Thayil, Tino Max

Nalluri, Pradeep Kumar

Graduated:

- Jin, Stephanie, MS, 2022
- Nagireddy, Susmitha Reddy, MS, 2021
- Vethanayagam, Prajeeth Emanuel
- *Brahmavar, Srinidhi Bhat, MS, 2021*
- *Doifode, Nikhil, MS, 2021*
- *Nehe, Akshay, MS, 2021*
- Ahirwar, Ratan Singh, MS, 2020
- Brahmavar, Srinidhi Bhat, MS, 2020
- Chang, Wei, MS, 2020
- Cheng, Chia Cheng, MS, 2020
- Doifode, Nikhil Pramod, MS, 2020
- Joshi, Parth, MS, 2020
- Kallu, Harshith Reddy, MS, 2020
- Kamat, Viraj, MS, 2020
- Krishnan, Swetha, MS, 2020
- Liu, Hsien-Yi, MS, 2020
- Pandya, Vishwam Jaimin, MS, 2020
- Patil, Sohan Dinkar, MS, 2020
- Vijayakumar, Aishwarya, MS, 2020
- Dutt, Anurag, MS, 2020
- Yuan Huang, MS, 2020
- Naizheng Wang, MS, 2020
- Khadija Chowdhry, M.S., 2019
- Aditya Deshpande, M.S., 2019
- Nitesh Idnani, M.S., 2019
- Md Majid Jahangir, M.S., 2019
- Urmil Kadakia, M.S., 2019
- Rahul Rajesh Lachhani, M.S., 2019
- Wei-Cheng Li, M.S., 2019
- Rushikesh Nalla, M.S., 2019
- Ananya Palit, M.S., 2019
- Purvik Hiteshbhai Shah, M.S., 2019
- Arun Swaminathan, M.S., 2019

- Praitayini Kanakaraj (BMI M.S., 2019)
- Ayush Agarwal (M.S., 2018)
- Vishwatej Reddy Anugu (M.S., 2018)
- Mohit Lekhraj Khemchandani (M.S., 2018)
- Shukla,Rohit (M.S., 2018)
- Yunqing Yang (M.S., 2018)
- Pratik Sushil Zambani (M.S., 2018)
- Chenjun Feng (M.S., 2018)
- Jay Sharadchandra Lohokare (M.S., 2018)
- Shubham Kumar Jain (M.S., 2018)
- Amogh Avadhani (M.S., 2017)
- Gaurav Badur Gopalkrishna (M.S., 2017)
- Anusha Muthyampeta (M.S., 2017)
- Sudeshna Pal (M.S., 2017)
- Prachi Poddar (M.S., 2017)
- Poojitha Ponakala (M.S., 2017)
- Manish Kumar Valakonda (M.S., 2017)
- Aviral Nigam (M.S., 2017)
- Xinyu Dong (MS., SUNY Korea, 2017)
- Qingjiang Yin (MS., SUNY Korea, 2017)
- Zhiqian Liu (MS 2017)
- Sheetal Mangesh Pandrekar (MS 2016).
- Abhinav Agshikar (MS 2016). First employment: Amazon
- Yangyang Zhu (MS 2015). First employment: VMWare
- Jiaqi Chen (MS 2015). First employment: VMWare
- Kaushik Devarajaiah (MS 2015). First employment: Google
- Mudit Mehrotra (MS 2015). First employment: Trulia

Undergraduate student supervising:

- Cynthia Wu (2022, funded by Stony Brook Cancer Center)
- Hyungtaek,Kwon (2022)
- Tan,Zhixuan (2022)
- Joshua Kartzman (2021, funded by NSF NEU)
- Erica Chen (2021, funded by NSF NEU)
- Joohak Lee (2021, funded by NSF NEU)
- Fiona Murphy (2021, funded by NSF NEU)
- Christina Low (2020-2021, funded by NSF REU)
- Khiem Phi (2020-2021)
- Anthony Xiang (2019-2020, Stony Brook University, funded by NSF REU)
- Hannah Yao (2018-2020, Stony Brook University, funded by NSF REU)
- Rishi Paras Shah (2017, Columbia University, funded by NSF REU)
- Nicholas Cataldo (2016, Stony Brook University, funded by NSF REU)
- Carolyn Kiriakos (2015, Stony Brook University, funded by NSF REU)
- Priscila Souza (2015, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil; visiting student at Stony Brook University)

High school student supervising:

- Siva Karthika (CSIRE 2022)
- Anthony Ahn (CSIRE 2022)
- Luke Hou (CSIRE 2021)
- Joshua Li (CSIRE 2019)
- Amy Feng (CSIRE 2019)

- Jamie Fu (Simons 2018)
- Katherine Kim, Jericho High School, New York (CSIRE 2018)
- John Joshua, Ward Melville High School, New York (CSIRE 2018)
- Andrew Wang, Murphy Jr. High, Stony Brook, New York (CSIRE program, 2017)
- Kevin Zhou, Commack High school, Commack, New York (CSIRE program, 2017)
- Flynn Bridget, Commack High school, Commack, New York (CSIRE program, 2017)
- Sean Pak, Commack High school, Commack, New York (CSIRE program, 2017)
- Samuel Steiger, Commack Shoreham Wading River, Shoreham, New York (CSIRE program, 2017)
- Daniel Kim, Randolph High School, Randolph, New Jersey (Simons Summer Research Program, 2017)
- Kavya Kopparapu (Thomas Jefferson High School for Science and Technology, Virginia, funded by Simons Summer Research Program, 2017)
- Niranjana Kumar (Manhasset High School, Manhasset, New York, 2015)

Visiting Scholars:

- Ping Fan, visiting associate professor, Hubei University of Sci. & Tech., China, April, 2016-March, 2017
- Dubovitskaya Alevtina, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland 2016
- Na Tang, visiting associate professor, South Normal University, China, August 2015-August 2016
- Ming Zhong, visiting associate professor, Wuhan University, China, September 2015-September 2016
- Wei Zhang, Associate Professor, Harbin Institute of Technology, China January 2013-January 2014

Ph.D. dissertation committee:

- Karl Spuhler, Biomedical Engineering, Stony Brook University, 2019
- Shuchu Han, Computer Science, Stony Brook University, 2017
- Liyue Fan, Computer Science and Informatics, Emory University, 2014

SERVICES

Program committee member or organizer (recent):

- ACM SIGMOD/PODS Conference 2023
- IEEE BigData 2022
- IEEE BigData REU Symposium 2022
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL 2022)
- ACM SIGMOD/PODS Conference 2022
- The 48th International Conference on Very Large Data Bases (VLDB 2022)
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL 2021) (**General Chair**)
- The Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2021
- The 35th AAAI Conference on Artificial Intelligence (AAAI 2021)
- The Seventh VLDB International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2021) Co-Chair
- IEEE BigData REU Symposium 2021
- eScience 2021
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL 2020) (**General Chair**)
- The Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2020
- Third International Workshop on Blockchain Technologies for Multi-Agent Systems, 2020
- The Sixth VLDB International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2020) Co-Chair
- The 8th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data (BigSpatial 2019)

- The 4th IEEE International Workshop on Big Spatial Data (BSD 2019)
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL 2019)
- eScience 2019
- Second International Workshop on Blockchain Technologies for Multi-Agent Systems, 2019
- The 7th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data (BigSpatial 2018)
- The 3rd IEEE International Workshop on Big Spatial Data (BSD 2018)
- First International Workshop on Blockchain Technologies for Multi-Agent Systems (BCT4MAS 2018)
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL 2018)
- Third ACM SIGSPATIAL Student Research Completion (SRC 2018). **Co-Chair (lead)**
- The Third VLDB International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2018) **Co-Chair (founder)**
- The Third VLDB International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2017) Co-Chair (founder)
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL 2017)
- Second ACM SIGSPATIAL Student Research Completion (SRC 2017). **Co-Chair (lead)**
- The 6th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data (BigSpatial 2017)
- The 2nd IEEE international workshop on big spatial data (BSD 2017)
- IEEE International Conference on eScience (eScience 2017)
- IEEE International Conference on Healthcare Informatics (ICHI 2017)
- The 2017 International Symposium on Spatial and Temporal Databases (SSTD 2017)
- 29th International Conference on Scientific and Statistical Database Management (SSDM 2017)
- The 9th International Conference on Advanced Geographic Information Systems, Applications, and Services (GEOProcessing 2017)
- EDBT Workshop on Querying Graph Structured Data (GraphQ 2017)
- The 7th International Symposium on Internet of Ubiquitous and Pervasive Things (2017)
- IEEE International Conference on eScience (eScience 2016)
- The Third International Conference on CyberGIS and Geospatial Data Science (CG 2016)
- IEEE International Conference on Healthcare Informatics (ICHI 2016)
- IEEE International Workshop on Big Spatial Data (BSD 2016)
- ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data (BigSpatial-2016)
- EDBT Workshop on Querying Graph Structured Data (GraphQ 2016)
- The second VLDB International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2016). **Co-Chair (lead)**
- The 8th International Conference on Advanced Geographic Information Systems, Applications, and Services (GEOProcessing 2016)
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL 2016)
- The 6th International Symposium on Internet of Ubiquitous and Pervasive Things (IUPT 2016)
- EDBT Workshop on Querying Graph Structured Data (GraphQ 2015)
- ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data (BigSpatial-2015)
- The first VLDB International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2015). **Founding Chair**
- The 5th International Symposium on Internet of Ubiquitous and Pervasive Things (IUPT 2015)
- The Seventh International Conference on Advanced Geographic Information Systems, Applications, and Services (GEOProcessing 2015)
- ICHI Workshop on Health Information Quality (HealthIQ 2015)

- 14th International Symposium on Spatial and Temporal Databases (SSTD 2015, demo track)
- The 8th International Workshop on High Performance Computing for Biomedical Image Analysis (HPC-MICCAI 2015)
- ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data (BigSpatial-2014)
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL GIS 2014)
- The 40th International Conference on Very Large Databases (VLDB 2014, Demo track)
- The Sixth International Workshop on Cloud Data Management (CloudDB 2014). **Co-Chair**
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL GIS 2013)
- ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data (BigSpatial-2013)
- IEEE International Conference on Healthcare Informatics 2013 (ICHI 2013). **Workshop Co-chair**
- The Fifth International Workshop on Cloud Data Management (CloudDB 2013). **Co-Chair**
- The 7th Metadata and Semantics Research conference (MTSR 2013), 2013
- The 3rd International Workshop on Internet of Ubiquitous and Pervasive Things (IUPT), 2013
- The Fourth International Workshop on Cloud Data Management (CloudDB 2012). **PC Co-Chair**
- The Extremely Large Databases Conference at Asia (XLDB Asia), 2012. **PC Chair**
- International Workshop on Managing Interoperability and complexity in Health Systems (MIX-HS), 2012
- The 2nd International Workshop on Internet of Ubiquitous and Pervasive Things (IUPT), 2012

Manuscript reviewers:

- ACM Transaction on Database Systems (TODS)
- ACM Transactions on Intelligent Systems and Technology
- ACM Transactions on Management Information Systems
- ACM Transactions on Spatial Algorithms and Systems
- AIMS Medical Science
- Applied Clinical Informatics
- Bioinformatics
- BMC Cancer
- BMC Medical Research Methodology
- Computers & Electrical Engineering
- Computing in Science & Engineering
- Concurrency and Computation: Practice and Experience
- Geoinformatica
- Computer Methods and Programs in Biomedicine
- EBioMedicine
- Fundamental Research
- GigaScience
- IEEE/ACM Transactions on Computational Biology and Bioinformatics
- IEEE Communications Letters
- IEEE Communication Magazine
- IEEE Transactions on Biomedical Engineering (TBME)
- IEEE Transactions on Computational Social Systems
- IEEE Transactions on Knowledge & Data Engineering (TKDE)
- Journal of the American Medical Informatics Association (JAMIA)
- Journal of Biomedical Informatics
- Journal of Computer and System Sciences
- Journal of Data and Knowledge Engineering (DKE)
- Journal of Digital Imaging

- Journal of Information Sciences
- Journal of Information and Software Technology
- Journal of Information Systems
- Journal of Medical Internet Research
- Journal of Multimedia Tools and Applications
- Journal of Network and Computer, Journal of World Wide Web (WWW)
- Journal of Systems, Man and Cybernetics
- Journal of Network and Computer Applications
- Knowledge and Information Systems (KAIS)
- npj Digital Medicine
- Scientific Data (Nature)
- The Very Large Data Bases Journal (VLDBJ)

Guest editor:

- Distributed and Parallel Databases
Special Issue on Data Management and Analytics for Healthcare, 2018
- Journal of Computer Science and Technology
Special Issue on Cloud Data Management, 2013

Grant Review Panels:

- NIH CDMA 2022
- NIH IMST 2022
- NIH SBIR external review 2021
- NSF CISE IIS Panel 2020
- NIH SBIR review panel 2020
- NIH HuBMAP review panel 2020
- NIH BRAIN review panel 2019
- NIH SBIR review panel 2019
- NSF Industrial Innovation and Partnerships review panel, 2019
- NSF CISE panel, 2019
- NSF Industrial Innovation and Partnerships review panel, 2018
- NSF Industrial Innovation and Partnerships review panel, 2017
- Netherlands Organisation for Scientific Research external reviewer, 2017
- NSF ACI external reviewer, 2016
- NSF ACI panel, 2016
- NSF Industrial Innovation and Partnerships external reviewer, 2016
- NSF Industrial Innovation and Partnerships review panel, 2016
- NSF Industrial Innovation and Partnerships review panel, 2015
- NSF CISE external reviewer, 2015
- NSF CCF external reviewer, 2015
- NSF CISE review panel, 2014
- NSF SI2 external reviewer, 2014
- HongKong Research Grants Council reviewer, 2013, 2014, 2015, 2016, 2017

SOCIETY MEMBERSHIPS

Association for Computing Machinery (ACM): member

IEEE: member

The Society of Photographic Instrumentation Engineers (SPIE): Senior member

Association for Pathology Informatics: Member

American Medical Informatics Association (AMIA): Member