

# Xi He

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## Education

Ph.D. Computing Science, Georgia State University, 2010-2016.

M.S. Computing Science, Rochester Institute of Technology, 2008-2010.

## Patent

Parallel Priority Queue on Many-core Processors

Parallel Rtree on Many-core Processors, Pending

## Research Interests

My current research interests are mainly on Data Visualization. I also involved in research related to parallel computing (especially on GPU), distributed computing, and grid computing.

## Publications

**He, X.**, and Ying Z., "Storygraphs: A new visualization paradigm for spatio-temporal data", submitted.

**He, X.**, and Prasad, S. K., "Parallel R-tree construction on GPGPU ", submitted.

**He, X.**, and Prasad, S. K., "An GPGPU Based Platform for GIS Vector Data Overlay Processing", submitted.

**He, X.**, and Ying Z., "TennisMatchViz: A Tennis Match Visualization System" IS&T International Symposium on Electronic Imaging 2016 in the Visualization and Data Analysis Conference, Poster

**He, X.**, and Ying Z., "An Indented Level-Based Tree Drawing Algorithm for Text Visualization" 19th International Conference Information Visualisation, 2015, Accepted

**He, X.**, Agarwal, D., and Prasad, S. K., Design and Implementation of a Parallel Priority Queue on Many-core Architectures, IEEE International Conference on High Performance Computing (HiPC), Pune, India, December 2012. (25.15% acceptance rate)

**He, X.** "Thermal Aware Task Scheduling With Artificial Neural Network", WIPGC workshop of International Green Computing Conference, Chicago, IL, 2010, Accepted.

Agarwal, D., Puri, S., **He, X.**, and Prasad, S. K. A system for GIS polygonal overlay computation on linux cluster - an experience and performance report, IEEE International Parallel and Distributed Processing Symposium workshops, Shanghai, China, May 2012.

Agarwal, D., Puri, S., **He, X.**, and Prasad, S. K. Cloud Computing for Fundamental Spatial Operations on Polygonal GIS Data, Cloud Futures 2012 - Hot Topics in research and education, Berkeley, California, May 2012.

Wang, L.; Von Laszewski, G.; Younge, A.; **He, X.**; Kunze, M.; Tao, J. and Fu, C., Cloud computing: a perspective study, New Generation Computing, Springer, 2010, 28, 137-146

Wang, L., A. J. Younge, T. R. Furlani, G. von Laszewski, J. Dayal, and **He, X.**, "Towards Thermal Aware Workload Scheduling in a Data Center", 10th International Symposium on Pervasive Systems, Algorithms and Networks (I-SPAN 2009) , Kao-Hsiung, Taiwan, 12/2009, Accepted.

Laszewski, G., Wang L., Younge A. J., and **He, X.**, "Power-Aware Scheduling of Virtual Machines in DVFS-enabled Clusters", IEEE Cluster 2009, New Orleans, Louisiana, IEEE, 08/2009.

Laszewski, G., Younge A., **He, X.**, Mahintha kumar K., and Wang L., "Experiment and Workflow Management Using Cyberaide Shell", 4th International Workshop on Workflow Systems in e-Science (WSES 09) in conjunction with 9th IEEE International Symposium on Cluster Computing and the Grid: IEEE, 2009.

Laszewski, G., Wang F., Younge A., **He, X.**, Guo Z., and Pierce M., "Cyberaide JavaScript: A JavaScript Commodity Grid Kit", GCEo8 at SC'08, Austin, TX, IEEE, Nov. 16, 2008.

## Research Projects

*TennisMatchViz: A Tennis Match Visualization System*

*Text X-Ray: An Interactive Text Visualization Tool for Corpus-based Language Teaching and Learning*

*Parallel Priority Queue on Many-core Architectures*

*GIS Vector Data Overlay Processing on Azure Platform*

*Parallel Java*, an API and middleware for parallel programming in 100% Java.

*Cyberaide JavaScript*, an easy-access JavaScript grid abstraction layer.

*Cyberaide Shell*, an advanced but simple to use system shell facilitating the use of current and future cyberinfrastructure.

## Teaching Experience

2011 Fall CSC 3320 System level Programming

2012 Fall CSC 3320 System level Programming

Last updated: April 18, 2017