Rajasekar Karthik, *Research Scientist*

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Education

M.S., Computer Science, Purdue University (2011).
B.S., Computer Science and Mathematics, Purdue University (2006).

Professional Experience

2013 – present
- Research Scientist, Oak Ridge National Laboratory, Oak Ridge, TN

2011 – 2013
- Post-Masters Research Associate, Oak Ridge National Laboratory, Oak Ridge, TN

2010 – 2011
- Graduate Research Assistant, Department of Computer Science, Purdue University, West Lafayette, IN

2006 – 2009
- Research Application Developer, Discovery Park, Purdue University, West Lafayette, IN

Professional Interests

Scalable and High-Performance architectures, Geographic Information Systems (GIS), Emerging technologies such as Node.js, HTML5, and NoSQL, and Cloud computing

Awards

- Co-PI for ORNL's Laboratory Directed Research and Development (LDRD) R&D grant titled "Urban Typologies: Towards an ORNL Urban Information System" 2016 – 2018
- R&D 100 Awards Finalist – CoNNECT 2.0: Activity-Based Recommender System for Energy Services 2015
- Urban Dynamic Institute – Inaugural Member 2015 – present

- ORNL's Computational Sciences and Engineering Division Annual Award – Accelerated Settlement Detection using High Performance Computing Methods 2015
- 2nd Best Poster Award for BioenergyKDF at ACM SIGSPATIAL Conference 2014
- Co-Inventor- Invention Disclosure (ORNL) for the Development of World Spatio-Temporal Analytics & Mapping Project (W-STAMP) 2014
- Significant Event Award for the W-STAMP 2014

Selected Publications

Karthik, R., and Lu, W. 2014. Scaling an Urban Emergency Evacuation Framework: Challenges and Practices. Big Data and Urban Informatics (BDUIC' 14).

Karthik, R., Patlolla, D., Sorokine, A., White, D., and Myers, A. 2014. Building a Secure and Feature-rich Mobile Mapping Service App using HTML5: Challenges and Best Practices. 12th ACM International Symposium on Mobility Management and Wireless Access (ACM MobiWac' 14).

Myers, A., Movva, S., **Karthik**, R., Bhaduri, B., White, D., Thomas, N., and Chase, A. 2014. BioenergyKDF: Enabling Spatiotemporal Data Synthesis and Research Collaboration. 22nd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL' 14)

Bhaduri, B., Patlolla, D., Vatsavai, R., Cheriyadat, A., Lu, W., and **Karthik, R**. Emerging Trends in Monitoring Landscapes and Energy Infrastructure with Big Spatial Data. ACM SIGSPATIAL Special Volume 6, Issue 3 (2014).

Karthik, R. 2014. SAME4HPC: A Promising Approach in Building a Scalable and Mobile Environment for High-Performance Computing. 3rd ACM SIGSPATIAL International Workshop on Mobile Geographic Information Systems (ACM MobiGIS' 14)