

Ranga Raju Vatsavai
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(a) Professional Preparation

University of Minnesota	Minneapolis, MN, USA	Computer Sci.	MS, 2003
University of Minnesota	Minneapolis, MN, USA	Computer Sci.	PhD, 2008

(b) Appointments

2014 -- Associate Professor, Computer Sci., NC State University, USA,
Associate Director, Center for Geospatial Analytics, NCSU, USA
Joint Faculty Appointment, Oak Ridge National Laboratory, USA

2013 --2014 Lead Data Scientist, CSE Division, Oak Ridge National Laboratory, USA

2011 -- 2013 Senior Research Scientist, Oak Ridge National Laboratory, USA

2006 – 2010 Research Scientist, Oak Ridge National Laboratory, USA

2004 – 2006 Research Staff Member, IBM-Research, IRL, IIT-Delhi campus, India

1999 – 2004 Research Fellow, Remote Sensing Lab. U of Minnesota; Twin-cities, MN

1998 – 1998 Systems Consultant, AT&T Labs, R&D HQ, Middletown, NJ

1995 – 1998 Member Technical Staff, Center for Dev. of Advanced Computing
(C-DAC, Dept. of Electronics, Government of India, Pune, India)

1990 – 1995 Technical Assistant, Remote Sensing & GIS Division, NFDMC/FSI,
Ministry of Environment and Forests, Dehradun, India

(c) Products

(i) Five Products Related to the Proposed Research

1. S. F. Ryan, N. L. Adamson A. Aktipis, L. K. Andersen, R. Austin, L. Barnes, M. R. Beasley, K. D. Bedell, S. Briggs, B. Chapman, C. B. Cooper, J. O. Corn, N. G. Creamer, J. A. Delborne, P. Domenico, E. Driscoll, J. Goodwin, A. Hjarding, J. M. Hulbert, S. Isard, M. G. Just, K. Kar Gupta, M. M. López-Urbe, J. O'Sullivan, E. A. Landis, A. A. Madden, E. A. McKenney, L. M. Nichols, B. J. Reading, S. Russell, N. Sengupta, L. R. Shapiro, L. K. Shell, J. K. Sheard, D. D. Shoemaker, D. M. Sorger, C. Starling, S. Thakur, **R. R. Vatsavai**, M. Weinstein, P. Winfrey and R. R. Dunn. "The role of citizen science in addressing grand challenges in food and agriculture research," Proc. Royal Society B. Volume 285, Issue 1891. <http://doi.org/10.1098/rspb.2018.1977>
2. **R. R. Vatsavai**, 2013. "Gaussian Multiple Instance Learning Algorithm for Mapping the Slums of the World," ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD). ACM. 1419-1426, ISBN 978-1-4503-2174-7
3. J. Graesser, A. Cheriyyadat, **R. R. Vatsavai**, V. Chandola, J. Long, E. Bright. 2012. "Image Based Characterization of Formal and Informal Neighborhoods in an Urban Landscape," Selected Topics in Applied Earth Observations and Remote Sensing, IEEE Journal of, vol.5, no.4, pp.1164-1176.
4. V. Chandola, **R. R. Vatsavai**. 2011. "A scalable Gaussian process analysis algorithm for biomass monitoring." Statistical Analysis and Data Mining 4(4): 430-445.
5. Sushil K. Prasad, Danial Aghajarian, Michael McDermott, Dhara Shah, Mohamed F. Mokbel, Satish Puri, Sergio J. Rey, Shashi Shekhar, Yiqun Xe, **Ranga Raju Vatsavai**, Fusheng Wang, Yanhui Liang, Hoang Vo, Shaowen Wang: 2017. "Parallel Processing over Spatial-Temporal Datasets from Geo, Bio, Climate and Social Science Communities: A Research Roadmap." BigData Congress 2017: 232-250. IEEE

(ii) Five other Products

1. M. Sethi, Y. Yan, A. Rangarajan, **R. R. Vatsavai**, and S. Ranka. 2015. “*Scalable Machine Learning Approaches for Neighborhood Classification Using Very High Resolution Remote Sensing Imagery*,” ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD), ACM, 2069-2078. ISBN 978-1-4503-3664-2
2. A. Shashidharan, **R. R. Vatsavai**, A. Ashish, R. K. Meentemeyer. 2017. “*tFUTURES: Computational Steering for Geosimulations*.” ACM SIGSPATIAL/GIS 2017: 27:1-27:10. <https://doi.org/10.1145/3139958.3140049>
3. **R. R. Vatsavai**, Thomas E. Burk, Stephen Lime, Marco Hugentobler, Andreas Neumann, Christian Strobl. 2012. “*Open-Source GIS*.” Springer Handbook of Geographic Information 2012: 579-595
4. **R. R. Vatsavai**, 2012. “*Rapid Damage eXplorer (RDX): A probabilistic framework for learning changes from bitemporal images*,” IEEE International Conference on Data Mining (ICDM Demo Paper), Belgium. pp. 906-909. doi: 10.1109/ICDMW.2012.75
5. S. Shekhar, P. R. Schrater, **R. R. Vatsavai**, W. Wu, and S. Chawla. 2002. “*Spatial contextual classification and prediction models for mining geospatial data*.” IEEE Transactions on Multimedia, 4(2).

(d) Synergistic Activities

1. *Lenovo, Intel University AI Innovation Challenge Award*, SC-2019: The International Conference for High Performance Computing, Networking, Storage, and Analysis.
2. *Elsevier Best Paper, Poster Paper Award*, International Conference on Computational Sciences, 2016.
3. Received “*Outstanding Mentor*” award, DOE/ORNL, 2013.
4. Contributed to the several NSF and other federal agency sponsored workshops including: NSF/CCC workshop on “*Spatial Computing*”, NSF workshop on “*Social Networks and Mobility in the Cloud*”, NSF workshop on “*GeoSpatial and GeoTemporal Informatics*”, and DOE/ASCR Machine Learning Workshop, 2015.
5. Action Editor for the Springer’s *GeoInformatica* Journal since 2013.