Sidharth Kumar

Dept. / Major: *University of Utah, Computing*

Field of Study: *High Performance Computing*

Year in School: *5rd year grad student*

Degree Being Pursued: *Ph.D.*

Date Expected: *Fall 2014*

Academic Advisor: *Valerio Pascucci, Professor*

Email: *kumar.sidharth87@gmail.com*

Degree(s) held: *B.Tech., Information and Communication Technology from Dhirubhai Ambani Institute of Information and Communication Technology (India)*

Field(s) of Interest: *Parallel I/O, Storage, data analysis and visualization*

Planned Years in the PSAAP II Program: *2014*

Year in the PSAAP II Program: *1*

Description of Your Work/Project Within PSAAP II:
Work on PIDX, enabling simulations directly write data in IDX format (cache oblivious multi-resolution).

NNSA Laboratory Visit Information: *Visiting Los Alamos National Laboratory*

Selected Publications:
Characterization and Modeling of PIDX Parallel I/O for Performance Optimization. S Kumar, A Saha, V Vishwanath, P Carns, J Schmidt, G Scorzelli, R Ross, J Chen, H Kolla, R Grout, J Chen. Proceedings of SC13: International Conference for High Performance Computing, Networking, Storage and Analysis

Efficient Data Restructuring And Aggregation For I/O Acceleration In PIDX.

S Kumar, V Vishwanath, P Carns, J Levine, G Scorzelli, R Ross, J Chen, H Kolla, R Grout, J Chen.Proceedings of SC12: International Conference for High Performance Computing, Networking, Storage and Analysis

PIDX: Efficient Parallel I/O For Multi-Resolution Multi-Dimensional Scientific Datasets.
S Kumar, V Vishwanath, P Carns, B Summa, G Scorzelli, V Pascucci, R Ross, J Chen, H Kolla, V Pascucci. Proceedings Of 2011 IEEE International Conference On Cluster Computing (CLUSTER).

Scalable Visualization and Interactive Analysis Using Massive Data Streams.
V. Pascucci, P.-T. Bremer, A. Gyulassy, G. Scorzelli, C. Christensen, B. Summa, S. Kumar. Cloud Computing and Big Data, Advances in Parallel Computing, Volume 23, C. Catlett, W. Gentzsch, L. Grandinetti, G. Joubert, J. L. Vazquez-Poletti, Eds. IOS Press, 2013, pages 212-230.

The ViSUS Visualization Framework.
V. Pascucci, G. Scorzelli, B. Summa, P.-T. Bremer, A. Gyulassy, C. Christensen, S. Philip, and S. Kumar. In High Performance Visualization: Enabling Extreme-Scale Scientific Insight, E. W. Bethel, H. Childs, C. Hansen, Eds. Chapman & Hall/CRC Computational Science, 2012.

Date Updated: March 11, 2014