Hasan Abbasi

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Professional Preparation

Ph.D.	Computer Science, Georgia Institute of Technology, Atlanta, GA, 2011
B.S	Computer Systems Engineering, Ghulam Ishaq Institute of Technology, Pakistan, 2001

Appointments

2011-present	Research Scientist, Oak Ridge National Laboratory, Oak Ridge, TN
2011-2011	Research Leader, University of Tennessee Knoxville, Knoxville, TN

Relevant Publications

1. Q Liu, J Logan, Y Tian, H Abbasi, N Podhorszki, JY Choi, S Klasky, R Tchoua, et.al, "Hello ADIOS: the challenges and lessons of developing leadership class I/O frameworks", Concurrency and Computation, Practice and Experience, 2013
2. JC Bennett, H Abbasi, PT Bremer, R Grout, A Gyulassy, T Jin, S Klasky, et.al, "Combining in-situ and in-transit processing to enable extreme-scale scientific analysis", SC 2012
3. Hasan Abbasi, Greg Eisenhauer, Scott Klasky, Karsten Schwan, Matthew Wolf. "Just In Time: Adding Value to IO Pipelines of High Performance Applications with JITStaging, HPDC 2011.
4. Fang Zheng, Hasan Abbasi, Ciprian Docan, Jay Lofstead, Qing Liu, Scott Klasky, Manish Parashar, Norbert Podhorszki, Karsten Schwan, Matthew Wolf, "PreDatA - Preparatory Data Analytics on Peta-Scale Machines", IPDPS 2010
5. Hasan Abbasi., Matthew Wolf, Greg Eisenhauer, Scott Klasky, Karsten Schwan, and Fang Zheng, "DataStager: scalable data staging services for petascale applications", HPDC 2009
6. Hasan Abbasi, J. Lofstead, F. Zheng, S. Klasky, K. Schwan and M. Wolf, "Extending I/O through High Performance Data Services", Cluster 2009
7. Hasan Abbasi, Matthew Wolf, Karsten Schwan**,** "LIVE Data Workspace: A flexible, dynamic and extensible platform for Petascale applications", Proceedings of Cluster 2007

Activities and Projects

- **General**: Extensive experience in data staging for improved I/O efficiency and data processing pipelines.
- **OLCF**: Researching new methods for data movement and data processing to enable innovations in analytics and visualization.
- **ExaCT**: Extensive involvement with combustion co-design center with regards to Scientific Data Management and Analysis (SDMA).
- **RSVP**: Design and development of exascale workflow system with ADIOS.
- **Hobbes**: Exploring the Operating System and Runtime abstractions for composition of multi-component applications
- **Performance Understanding**: Develop new methods for addressing data management challenges in collecting, analyzing and understanding performance data from exascale workflows.

Collaborators & other affiliations

J. Cummings (Cal Tech), C. Docan (Rutgers), G. Eisenhauer (Georiga Tech), S. Etheir (PPPL), A. Gavrilovska (Georgia Tech), J. Lofstead (Sandia), R. Oldfield (Sandia), M. Parashar (Rutgers University), K. Schwan (Georgia Tech), P. Widner (Sandia), M. Wolf (Georgia Tech), F. Zheng (IBM), Al Maloney (University of Oregon), Varis Carey (University of Texas), Valerio Pascucci (University of Utah), Jack Lange (University of Pittsburgh), Brian Kocoloski (University of Pittsburgh, Patrick Bridges (University of New Mexico), C. S. Chang (PPPL), P-T Bremer (LLNL)

Advisor: Prof. Karsten Schwan, Georgia Institute of Technology, Atlanta, GA