

## Babu Sundaram, Ph.D.

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RESEARCH INTERESTS	Grid and High-performance Computing, Distributed Systems, Security and Resource Management	
OBJECTIVE	To research and develop software related to my professional interests and complete individual or group projects in a challenging, research-oriented and learning environment	
EDUCATION	<b>University of Houston</b> , Houston, Texas, USA – <i>Ph.D., Computer Science</i> , December 2006 – <i>M.S., Computer Science</i> , December 2001  <b>Anna University</b> , Chennai, Tamil Nadu, INDIA – <i>B.E., Mechanical Engineering</i> , May 1998	
HONORS AND AWARDS	<b>Two-time Winner</b> , Google's International Open Source Software Competition, 2005 & 06 Technical Author / Editor, Grid Computing Tutorials, <b>IBM developerWorks</b> , 2005 & 06 Recipient, <b>Best Teaching Assistant Award</b> 2006, University of Houston Recipient, <b>Student Scholar Award</b> , Global Grid Forum, Toronto, Canada, 2002 Recipient, <b>Best Graduate Student award</b> 2001, University of Houston Research Aide, Distributed Supercomputing lab, MCS, Argonne National labs, 2000 <b>Gold medalist</b> , Department of Mechanical Engineering, Anna University First Rank Holder in the Undergraduate class of 104	
PROFESSIONAL EXPERIENCE	<b>Department of Computer Science, University of Houston</b> , Houston, TX, USA <i>Research Scientist</i> <span style="float: right;"><b>Jan 2007 - Present</b></span> Software Development and Optimization for Large Scale Biomedical Computations  <b>Argonne National Laboratories, MCS Division</b> , Argonne, Illinois USA <i>Summer Research Aide</i> <span style="float: right;"><b>Summer 2000</b></span> Policy Specification in GSI Proxies. Appeared as Research gem in Supercomputing 2000.  <b>University of Houston</b> <span style="float: right;"><b>January 2002 - Dec 2006</b></span> Included current Ph.D. research, Ph.D. and Masters level coursework and research/consulting projects.  <i>Lecturer</i> <span style="float: right;"><b>Spring 2000</b></span> Taught Undergraduate courses for Programming in C, Visual Basic  <i>Instructor</i> <span style="float: right;"><b>May - June, 2002</b></span> Co-taught graduate level course for Grid Computing. Shared responsibility for lectures, exams, homework assignments, and grades.  <i>Mentor</i> <span style="float: right;"><b>Spring, Summer 2006</b></span> Provided learning support for all students in beginning level programming and fundamentals.	

## PUBLICATIONS

Babu Sundaram, B.M. Chapman, B. Li, M. Mayo, A. Siddiqui, S. Jones, *Sun Grid Engine Package for OSCAR - A Google Summer of Code 2005 Project*, In Proc. of the 20th International Symposium on HPC in an Advanced Collaborative Environment (HPCS'06), pages 41, May 14-17, 2006. IEEE Computer Society.

Babu Sundaram, B. M. Chapman, *A Grid Authentication System with Revocation Guarantees*, 12th IEEE Intl. Conf. on High Performance Computing, HiPC 2005, Goa, India, December 2005.

Babu Sundaram, B.M. Chapman, B. Li, M. Mayo, A. Siddiqui, S. Jones, *Build a SGE-HPC Cluster within Minutes*, Sun HPC Consortium, Seattle, November 2005.

Babu Sundaram, B. M. Chapman, *Addressing Credential Revocation in Grid Environments*, 6th IEEE/ACM International Workshop on Grid Computing, Seattle, November 2005.

Babu Sundaram, *Introducing Grid Security*, IBM developerWorks Article, Summer 2005.

Babu Sundaram, *Introducing Web Services Resource Framework*, IBM developerWorks Tutorial, Fall 2005.

Y. Yan, B. M. Chapman, Babu Sundaram, *Air Quality Forecasting on Campus Grid Environments*, Workshop on Grid Applications: from Early Adopters to Mainstream Users, In conjunction with GGF14, June 27 2005, Chicago, USA.

Babu Sundaram, B. M. Chapman, *Towards Simpler and Pervasive Grid Authentication Schemes*, GlobusWorld Conference 2005, Boston, MA, February 2005 .

B. M. Chapman, Babu Sundaram, et al., *Air Quality Prediction in a Production Quality Grid Environment*, Engineering the Grid: Status and Perspective, ed by J. Dongarra et al. Spring 2005.

B. M. Chapman, Y. Li, Babu Sundaram, J.He, *Computation Environment for Air Quality Modeling in Texas*, Use of HPC in Meteorology, World Scientific Publishing Co., 2003.

B. M. Chapman, Babu Sundaram, et al., *An OGSI-Compliant Portal for Campus Grids*, 10th ISPE International Conference on Concurrent Engineering: Research and Applications, July 2003.

Babu Sundaram, B. M. Chapman, *XML-based Policy Framework for Usage Policy Management in Grids*, Proceedings of 3rd International workshop on Grid Computing, November 2002.

Babu Sundaram, B. M. Chapman, *Policy Engine: A Policy-based Framework for Authorization and Accounting in Computational Grids*, 2nd International workshop on Grid Computing, Nov 2001.

Babu Sundaram, C. Nebergall, S. Tuecke, *Policy Specification and Restricted Delegation in Globus Proxies*, Proceedings of SuperComputing 2000, Dallas, TX.

## COMPUTER SKILLS

*Operating Systems* : Linux, AIX, FreeBSD, Solaris, MS-Windows

*Programming Skills* : C++, Java, C, Perl, Tcl / Expect / Tk, Python, .NET Framework, C#, ASP

*Web Services Technologies* : SOAP, WSDL, UDDI, Web Services Resource Framework (WSRF)

*Miscellaneous* : Globus Toolkit, Condor Cluster Software, MPI, OpenMP, MATLAB

## REFERENCES

**Available Upon Request**