Dimple Kaul

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EXPERIENCE SUMMARY

⋄ Pursuing Master of Computer Science degree at Vanderbilt University.
Working as a Graduate Student Research Assistant in the Institute for Software Integrated Systems(ISIS) at Vanderbilt. Prior experience as an Information Technology professional with more than 5 years of experience in application, product and database design, development and testing.

EDUCATION

⋄ **Vanderbilt University**, Nashville, TN, USA
Master of Science in Computer Science (GPA: 3.964), May 2007
Advisor: Dr. Aniruddha Gokhale

⋄ **Cummins College of Engineering, Pune University**, Pune, India
B.E., Electronics and Telecommunication (First Class), May 1999

RESEARCH & WORK EXPERIENCE:

⋄ **Graduate Research Assistantship**
Institute For Software Integrated Systems (ISIS)   Advisor: Dr. Aniruddha Gokhale
Vanderbilt University, Nashville, TN   July 2005 - Present

· Involved in research and development of *POSAML*, a modeling language to create a configurable and composable middleware system based on pattern-based building blocks. Adding new capabilities like automatic generation of specialization file.

· Conducted research survey on various specialization techniques like Feature Oriented Programming (FOP) & Aspect Oriented Programming (AOP). Used AspectC++ for specialization of Middleware framework like ACE for product line architecture showing gain in performance optimization.

· In collaboration with Advanced Computing Center for Research and Education (ACCRE), Vanderbilt University working on use of AspectJ Development Tool (AJDT) to address various crosscutting concerns for the L-Store distributed storage framework.

⋄ **Intern Programmer**
Advanced Computing Center for Research and Education(ACCRE)   Jun 2006 - Aug 2006
Vanderbilt University, Nashville, TN, USA
ACCRE offers computing resources flexible enough to enable high performance computing applications in a wide variety of research projects. To support a rapidly increasing need for data storage, they are developing and deploying means for on and offline data repositories.

· Worked on use of Aspect Oriented Programming technologies to separate new and old crosscutting concerns such as Transaction control, Database Connection Pooling, Exception handling, Access Control and Logging using (AJDT).

⋄ **Senior Member of Technical Staff**
vMoksha(vFortress) Technologies Pvt Ltd   2002 - 2005
Bangalore, India   http://www.vfortress.com
Worked for vFortress Network Security services, which provided security backbone to variety of applications. It provided manageable solutions for making business networks accessible for diverse groups of users, from anywhere, securely and affordably and end to end virtual private network and application security needs. - Worked on design, development of usability of GUI

and configuration of secure services - Implemented database and file system replication and load balancing - Making server portable with different types of operating systems - Designed and implemented user and user group authorization using LDAP

⬦ **Associate Consultant**
Zensar Technologies Ltd.(Fujitsu ICIL)   1999 - 2001
CMMI Level 5 company
Pune, India   http://www.zensar.com
Worked for the client Finnovative Solutions, CA, USA, for developing a portal for derivative trading in US Stock markets and extend various services to the clients. The Invesdex site was used for all activities related to promotional and administrative functions, including application for a new contract, investment, redemption, and termination. The allocation orders, Hedging, Trading, Investments/redemption, and other functions were performed on the Market Plus site http://www.invesdex.com.
- Design, development and maintenance of stored procedures and triggers. - Database setups, backup/recovery, administration and tuning.

SOFTWARE TOOLS EXPERTISE	⬦ Highly proficient with C/C++, Microsoft SQL 7.0/6.5, MYSQL, PostgreSQL, XML/XSL/XSLT, JavaScript, CGI, HTML, AspectC++, AJDT, Java, ACE, OpenSSL, x509 and Network socket programming.

⬦ Over 3+ years experience in C/C++ , 2+ years of experience in MS SQL Server development and administration and experience with core Java development.

⬦ Hands-on-experience on requirements gathering, design, programming and testing.

⬦ Writing database stored procedures, queries and triggers. Well conversant with Database Administration (Set up, creation, Maintenance).

⬦ Domain Knowledge of security product and experience of large financial project.

⬦ Proficient with modeling tools and environments like Generic Modeling Environment (GME).

⬦ Proficient with development, debugging tools and version controls – GNU tool-chain including gcc, g++, gdb, make, valgrind, Junit, vi editor, IDE's like Microsoft Visual Studio and Eclipse, CVS, Subversion and VSS

⬦ Worked on cross platform operating systems environments and APIs – Linux, many variants of Unix and Windows.

⬦ Experience in understanding and developing XML schemas and using XML parsers(Xerces).

⬦ Worked on distributed systems using OO frameworks for Network Programming e.g., ACE and CORBA. Knowledge of legacy client-server Unix socket programming.

⬦ Conversant with latest SEI-CMM procedures.

HONORS, AWARDS & CERTIFICATIONS	⬦ Graduate Research Assistantship, Vanderbilt University, Nashville, TN

⬦ Microsoft Certified Solution Developer (MCSD) - 2001

⬦ Brain Bench Certification in RDBMS Concepts, HTML 3.2 & MS SQL Server 2000

CO-CURRICULAR ACTIVITIES	⬦ Student Volunteer at the International Conference on Object-Oriented Programming Systems, Languages and Applications (OOPSLA), October 2006, Portland.

⬦ Attended the Workshop for Women Graduate Students organized by the Computer Research Association's Committee on the Status of Women in Computing Research (CRA-W), March 2006 and 2007, San Francisco.

REFEREED CONFERENCE PUBLICATIONS	⬦ **Dimple Kaul** & Aniruddha Gokhale, "Middleware Specialization using Aspect Oriented Programming," *ACM SE 2006 Southeast Regional Conference, Melbourne, Florida, Mar 2006*

⬦ Arundhati Kogekar, **Dimple Kaul**, Aniruddha Gokhale, Paul Vandal, Upsorn Praphamontripong, Swapna Gokhale, Jing Zhang, Yuehua Lin, Jeff Gray, "Model-driven Generative Techniques for Scalable Performability," *at the NGS Workshop, IEEE International Parallel and Distributed Processing Symposium, Isle of Rhodes, Greece, Apr 2006*

◇ **Dimple Kaul**, Arundhati Kogekar, Aniruddha Gokhale, Jeff Gray, Swapna Gokhale, "POSAML: A Visual Modeling Framework for Middleware Provisioning," *in Proceedings of the Hawaii International Conference on System Sciences, Jan 2007, Hawaii*

WORKSHOPS
PAPERS

◇ Alan Tackett, Bobby Brown, Laurence Dawson, Santiago de Ledesma, **Dimple Kaul**, Kelly McCaulley, and Surya Pathak, "QoS issues with the L-Store distributed file system," *in Proceedings of the Fifth International Conference on Generative Programming and Component Engineering (GPCE'06), Oct 2006, Portland, OR*

◇ **Dimple Kaul**, Aniruddha Gokhale, Alan Tackett, Larry Dawson, and Kelly McCauley, "Applying Aspect Oriented Programming to Distributed Storage Metadata Management," Workshop on Best Practices in Applying Aspect-Oriented Software Development (BPAOSD 07) at the Sixth International Conference on Aspect-Oriented Software Development (AOSD '07), Vancouver, Canada, March 12-16, 2007 (To Appear in ACM Digital library).

POSTERS

◇ **Dimple Kaul**, Aniruddha Gokhale, Alan Tackett, Larry Dawson, and Jules White, "Applying Aspect Oriented Programming to Distributed Storage Metadata Management," Poster presentation at Student Extravaganza at Sixth International Conference on Aspect-Oriented Software Development (AOSD'07), Vancouver, Canada, March 12-16, 2007.

REFERENCES

◇ *Available upon request*