Rohit Banga

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Education

- M.S. in Computer Science with Specialization in High Performance Computing at Georgia Institute of Technology (Fall 2011 - Present) Completed Courses: Computational Science and Engineering Algorithms, High Performance Computing Tools and Applications, Machine Learning, Web Search and Text Mining, Intro to HPC, Advanced Scientific Computing (GPA 4.0/4.0). Expecting to Graduate in May 2013.

- B.Tech. Computer Science, IIT Roorkee, India (2006-2010) GPA 9.174/10.0

Experience

- **Graduate Research Assistant**

  Aug 2012 - Present: Vein-to-Vein (Computing-For-Good Project) with Dr. Santosh Vempala - A webapp to monitor and analyze data from blood collection, testing, and utilization. Being designed in collaboration with CDC for developing countries of Africa (currently working with labs in Zambia, Cameroon). Advisor for this project: Dr. Santosh Vempala http://v2v.cc.gatech.edu http://github.com/C4G/V2V.

  Jan 2012 - May 2012: High Performance Computing Lab, Georgia Tech with Dr. David A. Bader in the Massive Graph Analytics Research Group.

  Aug 2011 - Nov 2011: Worked on GTFold - an RNA secondary structure prediction software.

  http://github.com/gtfold/gtfold

- **Software Engineer Intern at Facebook (May 2012 - July 2012)** Worked on development of tools for Modeling of Server Power Consumption and Power Estimation based on System Stats. Tools for Vizualization and Simulation of Power Consumed in Datacenters for different workloads / Server Rack configurations.

- **Software Developer** Oracle Server Technologies (Jun 2010 - Jul 2011) Part of LDAP Directory Services Team. Involved in the development of Oracle Unified Directory. Patent pending. Patent Title: "Directory Server Processing Requests Based On Hierarchical Models While Using Backend Servers Operating Based On Relational Models" filed on 22 May 2012.

- **Software Development Engineer in Test (Intern)** Microsoft India Development Center (May 2009 - Jul 2009) Developed a Performance Profiler for C# Test Automations for use by the Windows Test Team.

Publications

- A. Langer, R. Banga, A. Mittal and L.V. Subramaniam. Variant Search and Syntactic Tree Similarity Approach to Retrieve Matching Questions for SMS queries, In Proceedings of Fourth Workshop on Analytics for Noisy Unstructured Text Data, 26th October 2010, Toronto

- R. Banga, A. Langer, A. Mittal, P. Sondhi. SMS based Natural Language Interface for Locating Health Care Service Providers. In proceedings of National Forum on Mobile Applications for Inclusive Growth and Sustainable Development, pp 23-26, April, 2010, New Delhi, India.

- Chauhan, N.C.; Aggarwal, D.; Banga, R.; Mittal, A.; Kartikeyan, M.V.; Parallelization of Particle Swarm Optimization and its Implementation on Scalable Multi-core Architecture. In Proceedings of IEEE International Advanced Computing Conference, 2009, (pp 392-397), Thapar University, Patiala, India.

Projects

- SMS Collaborate Project at Georgia Tech Developing a django based webapp for configuring questions, participants and delivery schedules for research studies involving use of SMS.

- B.Tech. Thesis "Providing Natural Language Interface to Healthcare Services Over SMS" under the supervision of Dr. Ankush Mittal (Aug 09 - May 10) Researched use of SMS for following applications - Find a Doctor, Mobile Medicine, FAQ Matching

- Parallelization of Particle Swarm Optimization on Cell Broadband Engine (May 08 - Aug 08)

- Porting Maximum Parsimony Algorithm to Cell Broadband Engine (Mar 08 - Jul 08)

Academic Honors

- Institute Silver Medal for Best B.Tech. Project (CS) for Project titled *Providing Natural Language Interface to Health Care Services over SMS* from IIT Roorkee
- Recipient of Innovative Student Projects Award, 2010 from Indian National Academy of Engineering for B.Tech. Project

Computer Skills

- Programming in C/C++, Java. Experience working with Python, PHP, R, Javascript. Comfortable adapting to new programming languages, frameworks.
- **Additional Skills** High Performance Computing, Parallel Programming with MPI/OpenMP/Cell BE SDK, Server Power Modeling/Estimation, LDAP, Java Persistence API
- **OS:** Linux, Windows