

# Rohit Banga

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## Work Experience

- **Software Development Engineer, Amazon** May 2013 - Present. Working as a Software Engineer at Amazon Web Services in the ElasticBeanstalk team.
- **Software Engineer Intern, 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 Visualization and Simulation of Power Consumed in Datacenters for different workloads / server rack configurations.
- **Software Developer, Oracle Server Technologies** Jun 2010 - Jul 2011. Development of Virtualization features for 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** May 2009 - Jul 2009. Developed a Performance Profiler for C# Test Automations for use by the Windows Test Team.

## Education

- M.S. in Computer Science with Specialization in High Performance Computing at Georgia Institute of Technology (August 2011 - May 2013) Completed Courses: Computational Science and Engineering Algorithms, High Performance Computing Tools and Applications, Machine Learning, Web Search and Text Mining, High Performance Computing, Advanced Scientific Computing, Computer Graphics, Computing for Good, Special Problem (Design webapp for Healthcare Researchers). Compiler Design, Master's Project (Computing for Good - Vein-to-Vein) GPA 4.0/4.0.
- B.Tech. Computer Science, IIT Roorkee, India (2006-2010) GPA 9.174/10.0

## Projects

- MS Project **Computing for Good - Vein-to-Vein (August 2012 - May 2013)**  
Advisor: Dr. Santosh Vempala, Georgia Tech.  
Vein-to-Vein is an end-to-end solution designed to manage all information pertaining to blood donations, blood inventory, testing of blood, transfusion requests and blood usage in hospitals and clinics. It is an open source software aimed for deployment in low income countries of Africa. Project involved collaborating with Blood Safety team at CDC and Safe Blood for Africa to develop software that meets the requirements. Feedback for the initial versions of the software was gathered from blood collection centers in Zambia, Cameroon.  
In May 2013 project development was handed off to Jembi - a non-profit organization based in South Africa for final implementation of the project in countries of Africa. Jembi is continuing the project under the name "Blood Safety Information System (BSIS)".  
Websites: <http://v2v.cc.gatech.edu>, <http://github.com/C4G/V2V>, <https://github.com/jembi/bsis>
- 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
- SMS Collaborate Project at Georgia Tech (Copyright Georgia Tech, 2012) Developed a Django based webapp for creating question banks, delivery schedules for research studies involving use of SMS. Primarily aimed for use by Healthcare Researchers.
- Porting computationally intensive algorithms to Cell Broadband Engine Architecture.

## Academic Awards

- MS Research Award 2013 from Georgia Tech College of Computing for C4G - Vein-to-Vein.
- 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

## 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.

## Computer Skills

- Programming in C/C++, Java, Javascript, Python. Comfortable adapting to new programming languages, frameworks.
- **Additional Skills** High Performance Computing, Web Development, Django, Parallel Programming with MPI/OpenMP/Cell BE SDK, Server Power Modeling/Estimation, LDAP, Spring, Lucene, Hibernate, JPA.
- **OS:** Linux, Windows