

JISHA ABUBAKER

EDUCATION

- 2005 – present **UNIVERSITY OF ILLINOIS AT CHICAGO** Chicago, IL
M.S. in Computer Science
- GPA (current): 4.0/4.0
 - Intended graduation: July, 2007
 - Member (by invitation) Phi Kappa Phi Honor Society
- 2000 – 2004 **BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI** Pilani, India
B.E. (Cum Laude) in Computer Science
- GPA: 8.68/10.0

INDUSTRIAL EXPERIENCE

May 2006 – Aug 2006 **ADCENTER LABS, MICROSOFT INC.** Redmond, WA
Researcher (Intern)

- Researched and developed technologies in the area of electronic advertising for the Windows Live (MSN Search) search engine.
- Developed extension to the search engine and the ad delivery engine to tokenize search queries into entities for improving the relevance of search results and paid search advertisements. A rapid prototyping iterative development methodology was applied to develop this extension based on an automatically generated dictionary of entities created using the search engine and Wikipedia. Development was done in C# and ASP.NET using Visual Studio .NET.
- Online demo available at http://adlab.microsoft.com/Adev_demo/EEexplorer.aspx

June 2004 – June 2005 **WEB TIER ENGG. GROUP, SUN MICROSYSTEMS (I) PVT. LTD.** Bangalore, India
Software Development Engineer

- Designed and implemented the HTTP response content rewriting, web-based administration and version migration modules of Sun Java System Web Proxy Server 4.0. Developed the modules in C and Perl.
- Trained 30+ maintenance engineers and technical support personnel on product details through local/remote presentations and online forums.
- Supervised team intern – mentored in product overview, trained usage of development tools and provided project assistance.

January-June 2004 **SUN ONE ENTERPRISE WEB SERVER, SUN MICROSYSTEMS (I) PVT. LTD.** Bangalore, India
Engineering Intern

- Performed testing and QA of Sun ONE Java Enterprise Web Server (service packs for versions 4.1, 6.0 and 6.1).
- Developed automation scripts in Perl and Expect for product installation and deployment of sample web applications.

RESEARCH EXPERIENCE

AUTOMATIC SEMANTIC ROLE LABELING USING PROP BANK AND FUNCTIONAL PARSERS
(Master's Thesis research work in progress)

In collaboration with Dr. Barbara Di Eugenio, University of Illinois at Chicago

- Study on the use of features based on lexical functional parsers and the PropBank corpus (annotated for domain independent semantic roles) to build a learning system for automatic semantic role labeling (applicable in question answering and dialogue systems). Development performed in Java and Perl using Eclipse and libSVM machine learning tool.

WORD SENSE DISAMBIGUATION USING AUTOMATICALLY GENERATED CORPUS USING WORDNET AND THE SEARCH ENGINE

In collaboration with Dr. Clement Yu, University of Illinois at Chicago

- Researched and implemented a system using WordNet to formulate queries for a sense of a term and the search engine to create a corpus to help in better word-sense disambiguation. Development done in Java and C using Eclipse and Google Search API.

PRODUCT REVIEWS MINING: IDENTIFYING SPECIFIC PRODUCT ISSUES

In collaboration with Dr. Bing Liu, University of Illinois at Chicago

- Researched how online product reviews can be mined for statements based on issues related to the product, using Naïve Bayesian learning techniques on variable length n-grams. Developed using Java and BOW toolkit.

OUTLIER DETECTION THROUGH SEMI-SUPERVISED LEARNING

In collaboration with Dr. Bing Liu, University of Illinois, Chicago

- Designed and implemented a semi-supervised learning system for text using Naïve Bayesian techniques to create fake negative to supplement the outliers to be detected and thus improving on the classifier accuracy.

GENETIC ALGORITHMS AND MEMETIC ALGORITHMS FOR OPTIMISATION PROBLEMS IN ENGINEERING

In collaboration with Dr. B.V. Babu, Assistant Dean, Engineering Services Division, BITS, Pilani

- Developed and compared algorithms using evolutionary computation techniques (Genetic Algorithms, Memetic Algorithms, Differential Evolution and Tabu Search) to find the worst-case instance for the algorithm.
- Developed the algorithm to solve the NP complete SAT problem using Genetic Algorithms in C.

PUBLICATIONS

- Babu, B.V., Rekha Natarajan and Jisha Abubaker, “Evolutionary Computation Hybrids”, Accepted (In Press), TechGenesis-The Journal of Information Technology

SOFTWARE SKILLS

- Java, C, C#, C++, Perl, SQL, PL/SQL, Lisp, ASP.NET
- Windows, Solaris, Linux

AWARDS AND ACHIEVEMENTS

- Gold medal recipient at the 9th International Educational Conference of the American Federation of Muslims from India (AFMI) held in Calcutta, November 2000.
- Awarded National Scholarship for Outstanding Performance in Class X and XII by CBSE, India
- Secured top 0.1% of graduated candidates for Mathematics (Class X) and Physics (Class XII) by CBSE, India
- School topper for Class X and XII

OTHER POSITIONS HELD

- Secretary, Computer Science Graduate Students Association, University of Illinois, Chicago (2006-2007)
- Cultural Secretary, Girls Hostel, BITS, Pilani (2003-2004)
- Group Leader, Department of Sponsorship and Marketing for the All-India Cultural Fest, Oasis-2001 conducted at BITS, Pilani

OTHER PERSONAL INFORMATION

- **Languages known:** English, Hindi, Malayalam, Arabic
- **Hobbies:** Stenciling, playing the piano, Indian dance