Abhay Sibal

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Skill Set		
	Languages	**C**, **C++**, **Java**, **Python**, **Octave/MATLAB**, **Bash**
	Web Dev	**HTML5**, **Javascript CSS**
	Databases	**Relational** (MySQL), **NoSQL**
	Miscellaneous	**SpringMVC**, **LaTeX**, **GIT**, **lex/yacc**, **Gerrit**
		ATG-Dynamo, **ATG Commerce**, **JBoss Application Server**, **JSP/Servlets**, **Junit**

Areas of Interest

Algorithms, Data Structures, Machine Learning, Natural Language Processing.

Education

June 2015	**Bachelor of Engineering, Computer Engineering**, Netaji Subhas Institute of Technology, New Delhi	**77.78**%
May 2011	**All India Senior Secondary School Examination (C.B.S.E)**, Delhi Public School,Dwarka, New Delhi	**90.4**%
May 2009	**All India Secondary School Examination (C.B.S.E)**, Delhi Public School,Dwarka, New Delhi	**90.6**%

Awards and Achievements

Oct 2013	Participated in on-site regional competition in ACM-ICPC Amritapuri 2013, where my team sigsegv_29871 received an honorable mention out of 370+ teams.
2012-2015	Awarded merit scholarship for distinction in academics for 4 consecutive years during B.E.
May 2011	Secured All India Rank **1899** in All India Engineering Entrance Exam (AIEEE) amongst a million candidates.
May 2011	Secured All India Rank **3889** in IIT-Joint Entrance Exam (IIT-JEE) amongst half a million candidates.
Jan 2011	Awarded the prestigious Kishore Vaigyanik Protsahna Yojana (KVPY) Scholarship in **SB+2** stream, a national fellowship for students interested in Science by Department of Science and Technology, Govt. of India.
Jan 2010	Awarded Merit certificate for scoring 85 percent or above for 7 consecutive years in school.

Work Experience

@Walmartlabs, Bangalore   August 2015 - Current
Software Developer Engineer

- Presently I am a part of the team that is involved in cart and checkout operation (CXO) at samsclub.com (Ecommerce unit of whole-sale giant **Sam's club** - A Walmart Enterprise).
- My work involves designing REST services for cart and checkout operations, that can be called for performing specific operations.

SEETA, Delhi   June - July 2014
Summer Intern

- Worked on an educational project for software firm SEETA. My work involved development and extensions to an existing activity]textbfSocialCalc v6 on Sugar Platform
- The new version i.e. SocialCalc 7 has features compatible with recent versions of Sugar.
- Sugar is a development platform that is a part of an ongoing project on OLPC (One Laptop Per Child). OLPC aims to impart educational tools to students worldwide to facilitate learning, through interactive modes.

Projects

Automatic Text Summarization by using Analog Textual Entailment   January 2014-May 2014
Natural Language Processing

- Worked on implemeting a novel method of single document automatic extractive summarization using analog textual entailment.
- Extractive summarization technique extracts sentences from a document, based on their importance, without making any changes in their language.
- Analog textual entailment evaluates the percentage by which a text entails another text.
- Content model using HMM was used to cluster document.
- A comparison was done between the summaries from system's variants, previous methods and human summaries.

Identifying vulnerable nodes in a Mobile Ad-hoc Network(MANET) under Black-hole attack and Flooding attack   January 2015-May 2015
Final Year B.Tech Project

- We tried to classify the nodes as vulnerable or non-vulnerable node in a MANET.
- We proposed three parameters that are Request to Send flooding rate(RTS), Packet drop ratio(PDR) and Energy depletion rate(EDR) of a node present in the MANET.
- MANET is subjected to flooding and black-hole attacks.A centralized monitoring authority was assumed to be a part of network.
- Data was generated using NS-2. We modified the AODV Routing protocol's code to implement basic form of Black hole attack and Flooding attack and the data for training and testing the classifier was generated.
- Then various machine learning claasification techniques were run upon the data to get the best possible results.

Email Spam Classification   APRIL 2015
MACHINE LEARNING

- Designed an email spam classifier, which was aimed to classify an email as spam or non-spam.
- Normalized the data obtained from spam assassin public corpus. A vocabulary list was generated by choosing all words which occured atleast 100 times in the spam corpus.
- A resulting list of 1899 words was chosen, which was then used to classify 4000 training examples of spam and non-spam email.
- An accuracy of **98.5%** was achieved.

IAM Migration utility for migrating user database from ATG to IAM. Business goal   OCTOBER 2015
SOFTWARE DEVELOPMENT

- IAM Migration was a part of the 15_10 pharmacy project.
- Until the migration, user database for any pharmacy user was handled by ATG, whereas for Sams member, it is done by IAM.
- A migration utility of pharmacy users to IAM was designed by me, to be able to maintain a single authentication system for all users.
- This also facilitated logins of sams members from Pharmacy login page and vice-versa.

EXTRA-CURRICULAR ACTIVITIES

Regularly participated in competitive programming contests held on various sites like codeforces, codechef, topcoder.

- Codechef Max Rating: 2262 (Among top 1200 worldwide)
- Codeforces Max Rating : 1661 (Among top 500 Indians)
- Topcoder Max Rating: 1032 (Among top 300 Indians)

Received an honorable mention and stood 3rd at the @Walmart Datathon 2015 from amongst 45+ teams.

Actively take part in courses on coursera (machine learning, combinatorial game theory, etc.).

Regularly participate in the Google Code Jam and Facebook Hacker Cup contests.

Organized the event Inquisitor during CSI-NSIT's annual fest Techelon 2012.

Helped in organizing a Grad-School Talk, and the ACM SAARC coding contest.

Held the position of Reasearch and Technical Coordinator,ACM-NSIT during sophomore,junior and senior years.

MISCELLANEOUS

Interest in playing sports like Table Tennis, Chess and solving algorithmic problems.