Deepak Vasisht

CONTACT
INFORMATION

IV Year Undergraduate Student
Indian Institute of Technology Delhi
New Delhi, India

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RESEARCH
INTERESTS

Machine Learning and it's applications

EDUCATION

B.Tech in Computer Science and Engineering
Indian Institute of Technology, Delhi   July, 2009 – present

- Expected graduation date: July 2013
- Cumulative Grade Point Average: 9.84 *(Institute Rank 1)*

UNDERGRADUATE
THESIS

Active Learning for Bayesian Model for Multilabel Classification   July, 2012 – May, 2013

Working with Prof. Manik Varma and Ashish Kapoor, Researcher, Microsoft Research, Redmond to modify active learning techniques for models for Multilabel Classification. We use semi-supervised learning and active learning to greatly reduce training data requirements.

INTERNSHIPS

Bayesian Model for Multilabel Classification   (Prof. Manik Varma and Ashish Kapoor)
Microsoft Research, Redmond   (May, 2012 – July, 2012)

Developed a Bayesian model for multilabel classification that took into account label similarities and label sparsity and used Variational Bayes inference.

Societal Networks   (Prof. Balaji Prabhakar, Prof. Damon Wischick)
Stanford University   (May, 2011 - July, 2011)

Designed and implemented an android application, PowerSnap to be used in Japan to incentivise people to shift energy consumption to off-peak hours and implemented the incentive based game being used by the Societal Network Group projects like Insinc, Capri.

INDEPENDENT
PROJECTS

Independent Study: Multilabel Classification   (Prof. Manik Varma)
Computer Science and Engineering, IIT Delhi   (Jan, 2012 – May, 2012)

Explored machine learning techniques including SVM's, Random forests, Adaboost and Gradient boosted regression trees and analysed their results for different multilabel classification datasets.

Project: Tracing trajectories of motile bacteria   (Prof. Aditya Mittal)
School of Biological Sciences, IIT Delhi   (July, 2012 – Present)

Developed a system to trace trajectories of motile bacteria from 33ms resolution real time video microscopy data, specifically addressing the problems of missing frames and random movements.

Independent Study: Continuation Passing Style Interpreters   (Prof. Sanjiva Prasad)
Computer Science and Engineering, IIT Delhi   (July, 2011 – Dec, 2011)

Studied different aspects of programming languages in depth with specific focus on continuation passing style.

Survey Project: Literacy in Slums   (Prof. Reetika Khera)
Humanities and Social Sciences, IIT Delhi   (July, 2011 – December, 2011)

Measured education level in slums of Malviya Nagar, Delhi and performed a comparative analysis of education levels in children taught by NGO's and government schools.

COURSE
PROJECTS

PintOS (Operating Systems)   (Jan, 2012 - May, 2012)
Implemented syscalls for user programs, virtual memory, scheduler and filesystem for the instructional operating system PintOS.

Interpreters for Prolog and SML (Programming Languages)   (Jan, 2011 - Apr, 2011)
Built a lexer, parser and an interpreter for a subset of the functions provided by SML and prolog.

Multiplayer Ping Pong (Software Engineering)   (July, 2010 - Nov, 2010)
Wrote server and client programs for a multiplayer ping pong game played over the network.

Web Application for GPS Navigation (Web Programming)   (July, 2010 - Nov, 2010)
Developed a web application using Ajax, PHP, SQL, jQuery, Javascript and HTML for finding the shortest path between two places on IIT Delhi campus.

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<td>Scholastic
Achievements</td>
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IIT Delhi Semester Merit Award for meritorious academic performance (5 times)

IIT Delhi Silver Medal 2010-11, 2011-12 for highest CGPA among non-graduating students

R. Vibhakar Memorial Commemorative Medal for securing the highest CGPA among students of all disciplines at the end of 3rd year

Had the honour of attending **Repulic Day Parade 2008, 2010 from Prime Minister's box** for being among the top 25 students in CBSE Secondary and Senior Secondary examinations respectively

Recipient of **OP Jindal Engineering and Management Scholarship**, 2009 and 2011, awarded to one student from each batch

Selected to give a talk on parallel iterative algorithms at **Indo-German Winter Academy-2011**

National Gold Medal at Indian National Chemistry Olympiad-2009

Felicitated by **Chief Minister of Haryana** for excellent performance in IIT JEE 2009, AIEEE 2009 and CBSE Senior Secondary Examination

All India Rank 33 in IIT-JEE (Joint Entrance Examination) 2009 among over 380,000 students

All India Rank 84 in AIEEE (All India Engineering Entrance Examination) 2009 among about 1,000,000 students

Recipient of the **National Talent Search Examination(NTSE)**-2007 scholarship

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<td>Positions of
Responsibility</td>
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Overall Coordinator, Student Mentorship Program, IIT Delhi   May,2012-Present
Leading a team of 5 coordinators and 160 student mentors to guide more than 850 first year undergraduate students at IIT Delhi

Secretary, National Service Scheme, IIT Delhi   April, 2011 – April, 2012
Collaborated with non governmental organisations to ensure volunteering experience and awareness for IIT Delhi students and set up teaching projects for underprivileged kids around IIT Delhi

Hostel Representative, Board of Student Publications   April, 2010 – April, 2011
Represented Jwalamukhi hostel in all the publication-related activities of IIT Delhi

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<td>Hobbies</td>
<td>Blogging (thelazy.info/deepak), poetry</td>
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