Siddharth Mitra

✉ sidmitra.del[gmail.com] http://sidm.appspot.com

Research My research interests lie primarily in *Social Network Analysis* and *Data Mining*.

Education

Indian Institute of Technology, Delhi, India — 2007 - present
M.Tech. in Computer Science and Engineering — *GPA*: 7.6/10

Vellore Institute of Technology, Vellore, India — 2003 - 2007
B.Tech. in Information Technology — *GPA*: 8.6/10

Work

Indian Institute of Technology — Teaching Assistant
Delhi, India

· Introduction to Database Systems (Undergraduate level, present)

· Introduction to Logic and Functional Programming (Graduate level, Spring 2008)

· Advanced Computer Graphics (Graduate level, Fall 2007)

Honeywell Technology Solutions Lab Pvt. Ltd. — Project Intern
Bangalore, India — Dec 2006 - May 2007

· Deployment of Knowledge Network over Microsoft Office Sharepoint Server(MOSS) 2007

· Assigned an additional project in a team of four, for the development, design, testing of a "Digital Forms 2.0" prototype, an inhouse workflow application over the Sharepoint platform

· Custom web parts for MOSS 2007

· Custom actions for customizing SharePoint designer

· Custom workflows using Windows Workflow Foundation(.Net 3.0)

Projects

Popularity Dynamics in Online Video Sharing — July 2008 - present
Modelling of access patterns of videos, evolution of their popularity, along with the growth trends of their uploaders and their social network. The work is based on traces of data containing around 3 million videos and snapshots collected over 5 months from YouTube, Dailymotion, Metacafe etc.

Characterizing Web-based Video Sharing Workloads — Jan - May 2008
Identifying invariants and differences in video popularity distributions, and statistical analysis of static meta data across four major video sharing services. Work submitted to WWW' 09, Madrid.

Online Content Aggregation and Filtering on a Social Network — Apr 2008
Studying the effect of user rank on the popularity of the content posted by him. Involved studying a user submitted news site *Reddit*, to characterize user behaviour on such social networks.

Non Photo-realistic Rendering — Sep 2008
Conversion of any photo-realistic image to non photo-realistic(NPR) one using colour segmentation by region growing. Also developed an NPR specific compression format based on the baseline JPEG standard.

Benchmark of High Performance Heaps — Nov 2007
Performance comparison of heaps such as Binary, Binomial and Fibonacci using Prim's and Fredman-Tarjan's minimum spanning tree computation of graphs, with millions of nodes.

Technical Skills

Languages:	Python, C, C++, Java, SML, exposure to 8086 Assembly
Web Technolgies:	ASP, Javascript, HTML, CSS, XML, exposure to PHP
Databases:	SQL, MySql 5, SQLite, Oracle 9i
Statistics:	Matlab, R, Numpy + Scipy (Python), SPSS
Libraries and Tools:	Boost, FLTK, Emacs, LaTeX, GCC, GDB, Make

Considerable experience in writing large scale web crawlers and scrapers using Python (urllib or mechanize), along with handling large data sets with over a billion rows.

Achievements

- All India Rank 6 in Graduate Aptitude Test in Engineering(GATE) 2007.
- All India Rank 292 in GATE 2006.
- Monthly scholarship from the Ministry of HRD, India.
- Silver Merit Certificate at the 1st National Cyber Olympiad.
- Scholastic Writing Awards 2002 certificate in the short story category.

References

Dr. Anirban Mahanti, Assistant Professor, IIT Delhi
Email: mahanti@cse.iitd.ernet.in