Abhinav Golas

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Education

Year	Degree/ Certificate	Institute/School, City	CGPA/ %
2003-08	Dual Degree (B.Tech + M.Tech) (Computer Science and Engineering)	Indian Institute of Technology (I.I.T.), Delhi	8.67/10
2003	Class XII (CBSE)	DPS R.K.Puram, New Delhi	91.2%
2001	Class X (CBSE)	DPS R.K.Puram, New Delhi	84.2%

- 2007: **Ministry of HRD scholarship** for outstanding academic performance
- 2007: **Department rank 4** (out of a batch of 17)
- 2003: Awarded **Dean's Merit Scholarship** for being in the **top 7% of undergraduate students**
- 2003: Awarded a **Gold Medal,** Delhi Public School, R.K. Puram for outstanding academic record
- 2001: **National Talent Search Scholar** (N.T.S.E.)
- 2000: **Junior Science Talent Search Scholar** (J.S.T.S.)
- 1999: **16th position, Regional Mathematics Olympiad (RMO)**, Delhi Region
- 1996: **All India rank 2**, Science Talent Search Examination, **12th** rank in 1997

Summer Internships

Network Appliance, Inc., (NetApp), AD (Advanced Research) Div., Bangalore, India   *May-July 2006*
- Studied access patterns of enterprise file server usage to develop search ranking criteria
- **Developed an optimized analysis module** for **analyzing & anonymizing** long term usage data
- Submitted preliminary recommendations for search rankings based on observed data

Genie Network Systems, erstwhile startup at I.I.T. Delhi   *December 2004-March 2005*
- Developed a synchronization and browse module for mobile phones to be incorporated into their next product

Other Academic Projects

Computer Graphics and Vision

- **Compressible Fluid Simulation for Realistic Explosions** (**M.Tech Project**)   *January 2007-Present*
  - Taking forward my interest in realistic graphics, am studying methods develop an efficient and realistic animation for explosions
  - Working on new methods to improve performance, accuracy and visual realism
- **PoseCut: Human Pose detection in video streams**   *August-December 2006*
  - Studied methods to **segment and detect human pose** from real-time and offline video streams
  - **Developed online** (5-10 fps) and **offline** modules using **Markov Random Fields** (MRF) which were to be used for the in-house surveillance project
- **Topic Discovery**   *January-May 2007*
  - Studied methods to **cluster images autonomously** based on inherent information in images
  - Developed module to cluster images with **99% accuracy** using inherent information in image, based on Video Google (Zisserman), and studied possible improvements to the system

Runtime Partial Reconfiguration   *May-August 2005*

- Implemented a Module based Runtime Partial Reconfiguration system on Xilinx FPGAs which demonstrated the proof of concept for feasibility of partial reconfigurability of large designs
- Among the **few successful implementations at the time**

Ad-hoc Wireless Sensor Networks   *July-December 2006*

- Studied and **developed simple algorithms for fast dynamic routing** on ad-hoc wireless networks
- Implemented a sensor network on wireless motes which collated atmospheric data for environment monitoring

Other minor projects

- Made a search engine based on **Latent Semantic Analysis**, **using low rank approximation SVD**
- Implemented and analyzed method of **Principal Components** (PCA) for **clustering of face images**
- Implemented a multi-core processor simulator
- Made a short animated movie 'The Haunted House', and a massively multiplayer game – War!

Positions of Responsibility

System Administrator, Computer Science Department, I.I.T. Delhi	Sole administrator for a computing cluster of 10 servers and over 100 clients serving over 500 users with basic computing services, email, web pages etc.	2004-present
Activity Head, Tech King (Tryst 2005 – Technical festival IIT Delhi)	Organized an open technical quizzing contest with 8 pre-selected finalists	2005
Organizer, NEMESIS, Tryst 2006	Organized the inter-college programming contest with over 50 participating teams	2006
Microsoft Student Partner	Responsible for spreading awareness about emerging technologies and events	2006-present
Teaching Assistant	For the Design Practices course, required to take some lectures, among other responsibilities	2007-present

Other Interests

- *Quizzing* : Have been an avid quizzer since school days and have achieved distinction in many events
- *Sports & Games* : Enjoy playing cricket ,soccer & chess on a regular basis
- *Travel* : Enjoy travelling and am extensively travelled all over India