ROHAN JAIN

Address: 126, Blackwelder Apartments, #1015, Stanford, CA - 94305
Phone: +1-650-804-4734, **E-mail:** rohanj@cs.stanford.edu, **Date of Birth:** September 5, 1986

Education

Stanford University – MS Candidate in Computer Science (Artificial Intelligence)   (*Expected June 2010*)

- GPA: **4.0**; **Research Interests**: Machine Learning, Computer Vision, Algorithms
- **Coursework**: Machine Learning, Info. Retrieval and Web Search, Computer Vision, Algorithmic Game Theory

Indian Institute of Technology, Delhi (IIT Delhi) – Btech. In Computer Science and Engineering   (*August 2008*)

- GPA 8.68/10; Awarded **Deans merit award** for two semesters; **Topped** with GPA **10.0** in first semester
- **Coursework**: Artificial Intelligence, Computer Graphics, Advanced Algorithms, Theory of Computation, Operating systems, Numerical and scientific computing, Algebra, Graph Theory, Probability, Optimization
- Conducted research in a wide variety of fields – Theory, Hardware Synthesis, Systems
- Was offered a position by **Goldman Sachs** in their Fixed Income Strategies Div. (Core Quant. Modeling)

Scholastic Achievements

- Recipient of the prestigious **Aditya Birla Scholarship** in 2004, awarded to **only 10** engineering students across all universities in India
- Secured an **All India Rank** of **12** out of 3,00,00 students in **IIT-JEE – 2004** (for admission into IITs)
- 15th position, **ACM ICPC Asia** region **contest (Kanpur)**; qualified as the **winner** from IIT Delhi.
- **Rank 1, Regional Mathematics Olympiad** (RMO), Delhi Region (2003); Rank 7 in RMO 2002

Summer Internships

IBM India Research Lab, Machine Learning Div., New Delhi, India   (*June-August 2008*)
- Modelled the relationship between parameters obtained from over **10,000 clusters** using Bayesian Networks.
- Implemented **k-means clustering** for discretization, and **R-trees** for storage and frequency calculation
- All implementation was done using Java, and the **Weka** machine learning library

Network Appliance Inc. (NetApp), CIFS Div., Bangalore, India   (*May-July 2007*)
- Obtained a **reduction of over 40%** in the total CIFS network traffic by **developing** a **caching module**
- Development was done in **Visual Studio (C++),** and involved using the **Winsocks 2 SPI**
- Obtained a **Pre-Placement Offer (PPO)**, the only intern from IIT Delhi to do so

Projects

Machine Learning Class Project: Movie Recommendation Using Social Networks   (*Nov - Dec, 2008*)
- Using **facebook** profile and social graph data, developed a movie recommendation engine
- Implemented **three** machine learning techniques – **SVM's, Ranked SVM's** and **Clustering** on user profiles
- The engine could predict (averaging over 500 profiles) a favorite movie **amongst the top 3** suggestions

Research Project: Video Montage   (*Nov,2008 -Present*)
- The objective is to generate a **video summary** from a collection of video clips with minimal user interaction
- **Extracted features** such as optical flow, color, spatial envelope, faces, objects from video
- Using machine learning techniques to generate **intelligent sequencing** of clips

Research Project: Optimization for Power Reduction in System Synthesis   (*May, 2006- April, 2007*)
- Selected for the **Summer Undergraduate Research Award (SURA), 2006**
- Developed a module that **reduced power** by optimizing the number of register load operations in synthesi*s*
- Recorded **15-20% savings** in power by testing this *new approach* exhaustively for **over 8 months**
- ➢ **Publication:** *Pushkar Tripathi, Rohan Jain, S. Kurra, P. R. Panda "REWIRED – REgister Write Inhibition by REsource Dedication", The 13th Asia and South Pacific Design Automation Conference, Korea, 2008*

Btech. Thesis: TIDE – Telemedicine In A Disconnected Environment   (*August, 2007-July, 2008*)
- **Collaborated** with the **University of Waterloo** to provide for telemedicine in remote villages of India, in internet/information challenged regions, using the **DTN** and **KioskNet** implementations
- The system was able to provide for auto doctor allocation, case histories, interaction with radiology equipment

Other Projects *(August 2004– 2008)*

- Developed a 3-D Multiplayer game called Labyrinth using java and java-3D
- Developed an automated Network Backup-Restore System using java
- Independent Study on Percolation Theory
- Simulated the popular Micro Mouse robotics problem on the FPGA kit using VHDL
- Developed an interpreter for Prolog in SML using MLyacc and MLlex
- Studied the effect of faults on the butterfly network

Technical Skills

- **Languages:** SML, C/C++, Java, SQL, HTML, PHP, VHDL, Prolog
- **Softwares:** Visual Studio, OpenCV, OpenGL, IFS Kit, Matlab, Lex/Yacc, GDB, WEKA, Xilinx, Altera

Leadership Skills

Organizing Secretary, Tryst – 2008, IIT Delhi's technical festival

- Led a team of **350** students to ensure effective running of IIT Delhi's largest ever technical festival, with participation increasing to **four times** previous years'
- Oversaw the introduction of **8** new events including Rube Goldberg, Genesis, and Confluence
- Raised **Rs. 730k** of sponsorship within 3 weeks

Placement Coordinator (Technical), Training and Placement Cell, IIT Delhi (2007-08)

- **Led** a 6-member technical team -
  - **Conceptualized, designed and implemented** a completely new online student placement software for the students, companies, administration as well as the TnP team
  - The code exceeded **50k lines** in length and is still able to satisfy the needs of **upto 1000** students that are up for placement every year
- Designed and implemented the concept of a **master resume**, in order to ensure **uniformity** and **transparency** in the resume collection procedure as well as to facilitate **easy verification** of resumes

Extra-Curricular Activities

- **Quizzing: Winner** of several **national level** quizzes at cultural festivals such as Rendezvous (IIT Delhi), Antaragini (IIT Kanpur), Splash (Lady Hardinge Medical College)
- **Aquatic Sports: Captain** of the Silver Medal winning Swimming Team in the inter-hostel swimming tournament, 2007
- **Dramatics:** A permanent member of Vindhyachal House's **English Play** team since 2005
- Won numerous prizes at inter-hostel level in events like word games, dumb charades, guess the good word

Other Interests

Cinema, Traveling, Literature & Music