

# ROHIT PRAKASH

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## EDUCATIONAL BACKGROUND

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### **B.Tech. in Computer Science and Engineering**

Indian Institute of Technology, New Delhi (2008)

## HONORS AND AWARDS

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- First runner up in ACES (Association of Computer Engineers and Scientists) Badminton Tournament consecutively for two years - 2005, 2006
- Awarded Certificate of Excellence in recognition to my excellent performance at **All India Talent Search Examination**, 1998
- Awarded **Certificate of Excellence** by Board of Students Welfare, IIT Delhi
- Completed Basic Mountaineering Course at **Nehru Institute of Mountaineering (with highest grade)**

## PROFESSIONAL EXPERIENCE

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### **UnNaturalTalents, New Delhi** (January 2011 till date)

- **ArtMaestro for iPhone:**
  - ★ Co-developed an application which converts user photos into different painting styles using Painterly Rendering techniques.
  - ★ Code written in C/ObjectiveC with OpenCV as image processing library.

### **Indiatimes, Gurgaon** (November 2009 - December 2010)

- **Shopping Recommendation :**
  - ★ Built a recommendation engine (in python) for indiatimes shopping site based on **collaborative filtering** using cosine similarity
  - ★ The recommendation engine has increased the daily sales by **10%** so far.
- **News Recommendation:**
  - ★ User profile was created using NLTK (python port of openNLP) by taking into account the news article read by the user.
  - ★ News articles recommended based on matching profile.

### **Clickable, Gurgaon** (May 2008 - September 2009)

- **Clickable Conversion Tracker :**
  - ★ Extended an open source web analytics tool - piwik for tracking conversions and performing web analytics.
  - ★ Ported the backend prototype on **Google App Engine** with data structures, big table schemas optimized to run real time queries.
  - ★ Backend rewritten in C# and MS SQL for handling more than **1.5 million requests** per day.
  - ★ The tool has become the highest revenue earner for the company with over **90%** of Paid Clickable Customers using this.
- **Customer Support Tools:**
  - ★ Built a **firefox plugin** to verify whether the conversion script is properly installed on landing page.
  - ★ Built a variety of tools to help customer support team resolve customer issues efficiently.
- **Clickable API:**
  - ★ Wrote a profiler to locate hotspots of the code and tune up performances of Clickable API .
  - ★ Optimized Stored Procedures to process massive amounts of data quickly.

### **SM Onyomo Infotech, TBIU, IIT Delhi** (May 2006 - August, 2006)

- **Bluetooth GPS Navigation System :**
  - ★ Designed and implemented a **prototype** (from scratch) enabling user to receive his current location information via bluetooth GPS receiver.
  - ★ Completed the project **alone** from conceptualizing to the implementation.
  - ★ Wrote a **driver** in J2ME which facilitated the reception of GPS data to the mobile phone, a parser to interpret it and server scripts to cater to the requests and queries.
- **Mobile Search & Chat Bot :**
  - ★ Designed and implemented a software which enables a user to make use of Onyomo's existing search engine on the mobile phone alongwith an array of features such as receiving RSS feeds, etc.
  - ★ Extended an open source chat bot (Alice Bot) to include features such as search, subscribing to RSS feeds, etc. via instant messengers like yahoo, msn, etc.
  - ★ Onyomo is using this as one of its **key services**.
  - ★ Due to my endeavors, the company offered me a **permanent position** in their company.

## Harvard Business School, 2007

- **Delhi Map Project** - Built a customized parser and a spellchecker to help Dr. S. Cole (Assistant Professor, Harvard Business School) carry out his research work.

## PROJECTS <sup>1</sup>

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**EADS (European Aeronautic Defence & Space Company) sponsored FFT Accelerator Project**, (under Dr. Kolin Paul, Dr. M. Balakrishnan) : The project is aimed to identify the multiprocessor partition strategies so as to improve the turnaround time of FFT (Fast Fourier Transformation).

- Performed detailed profiling and identified optimizations and hot spots to achieve speedup.
- Identified multiprocessor partition models.
- Achieved speedup of **2** in the multiprocessor implementation (using MPI)

**Sun Microsystems sponsored BioBox**, (under Dr. Dheeraj Bhardwaj):

- Build a *bio-cluster* grid based on ROCKS architecture and integrated the same with Sun's Biobox.
- Created a ROCKS roll that has been **accepted by Sun** as a turnkey solution for running a majority of bioinformatics applications on ROCKS.
- Presented a **poster** on "Biobox" in Open House (CSE, IITD), 2005

## PROJECTS DONE AS A PART OF COURSE WORK <sup>1</sup>

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- *Programmed a Lego robot to keep goals against an approaching ball.*
- *Wrote a software to generate projections of a 3D object on any cutting plane and recovered the 3D description from any viewing direction.*
- *Wrote an OS with keyboard support and sound.*
- *Recursive Ray Tracing Package in OpenGL that handled transparency, multiple light sources, anti-aliasing and texture mapping.*
- *Implemented a software package for Civil Engineering Department, IIT Delhi that enables the user to calculate parameters like stress, support reaction, shear force, joint displacement, bending moment, etc. of building structures.*
- *Mini Prolog Interpreter in SML.*
- *Implemented a naïve search engine using Latent Semantic Indexing.*
- *Implemented a Java applet simulating multi-cycle MIPS-32 processor with pipelining and static-branch prediction.*
- *Tone Mapping of High Dynamic Range Images.*

## SKILLS

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**Languages:** C/C++, C#, ObjectiveC, Java, SML, Ocaml, J2ME, PostgreSQL, MIPS Assembly, Prolog, DrScheme

**Packages/Tools:** Photoshop, Dreamweaver, Flash, Fluid, L<sup>A</sup>T<sub>E</sub>X, SPIM, yacc, lex, Doxygen, Matlab

**Platforms:** Linux, Windows, Solaris

**Scripting:** Python, PHP, Javascript

**Libraries :** OpenCV, OpenGL, LEDA, MPI, J3D, FLTK, STL, Microsoft Enterprise Library

## POSITIONS OF RESPONSIBILITY

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- **System Administrator, Microsoft Lab, (2004-2005)** : Managed the computing resources of Microsoft Lab of the CS department. Work included installation, support, and maintenance of servers and other computer systems, adding, removing, or updating user account information, resetting passwords, etc.
- **Hockey Captain, Jwalamukhi Hostel, (2004-2005)** : Bestowed upon with this responsibility in **sophomore** year itself.
- **Sports Secretary, ACES (Association of Computer Engineers and Scientists), (2005-2006)** : Organized events like badminton and squash, Age of Empires (AOE) tournaments.
- **Finance Secretary, ACES (Association of Computer Engineers and Scientists), (2006-2007)** : Helped in collecting funds for ACES. Procured a sum of Rs. 14000, **highest ever** ACES fund collected for the past 15 years. Obtained a contract for the Computer Science and Engineering Department T-shirts and helped in their distribution.
- **Volunteer, Training and Placement (TnP) Cell, IIT Delhi, (2004)** Volunteered for TnP cell and helped in organizing pre-placement talks by various organizations.

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<sup>1</sup> More details about the projects on my website. Please mail me for a list of references.