



Abhishek Asawa
Computer Science & Engineering
Indian Institute of Technology, Bombay

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B.Tech.
Male
DOB: 15 Oct 1990

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2012	8.35
Intermediate/+2	CBSE	Central Academy	2008	91.80
Matriculation	Maharashtra Board	Dnyanmata High School	2006	92.40

SCHOLASTIC ACHIEVEMENTS AND SCHOLARSHIPS

- Pursuing a **Minor in Management** as well as **Honors**
- Secured an **All India Rank 47** in the IIT-Joint Entrance Exam 2008 among 320,000 candidates
- Secured an **All India Rank 9** (State Rank 2) in All India Engineering Entrance Examination (AIEEE 2008)
- Awarded **Gold Medal** (top 0.1%) and **Certificate of Merit** in Indian National Chemistry Olympiad
- Awarded **Certificate of Merit** (in top 1%) in Indian National Physics Olympiad and Indian National Astronomy Olympiad
- Awarded **KVPY National Science Fellowship** by IISc Bangalore and Dept. of Science and Technology, Government of India in 2007
- Selected as **National Talent Search Examination (NTSE 2006) scholar** by National Council for Educational Research & Training (NCERT), New Delhi and I am recipient of scholarship for the same
- Recipient of All India CBSE merit scholarship for being in top 0.1% of students in AIEEE
- Secured an **All India Rank 2** and **All India Rank 5** in the 12th and 11th National Science Olympiad resp.
- Awarded Microsoft - IIT-B Alumni Scholarship based on academic performance in IIT-B in 2008

INTERNSHIPS

Intuit, Bangalore

Summer 2011

Logging Framework for Apple iOS

Guide: Prabhat Hegde

- Worked on developing a framework similar to log4j for data logging on iOS devices like iPod and iPhone
- The framework provided for writing **multi-level fine grained** log messages into a file asynchronously as well as to compress the file when it crosses the buffer limit
- The unique characteristic of the project was that it provided users with **more control** and yet it was **faster** than the **NSLog** system provided by Apple

Large Data Set Visualization

Guide: Prabhat Hegde

- Designed 4 models :2D-TagCloud, 3D-TagCloud, Treemaps and Stacked graphs for representation of data
- They communicated the **key-aspects of the data** in a more **intuitive** and **visually pleasing** way
- These models had variable number of **dimensions**, each of which was **uniquely mapped** to a particular characteristic of the visualization like colour, font size or area of the data displayed
- They were specifically designed and programmed to work seamlessly on **touch friendly** devices like **iPad**

Leuphana Universität, Germany

Summer 2010

IProFis – Information Management and Distribution System

Guide: Prof. Dr.-Ing. Wilfried Adami

- Designed and implemented an **intuitive user interface platform** primarily for touch devices for allocation of information to workers in manufacturing/production department of an Automobile factory
- Developed an interface to easily browse, manage and view images, Audio/Video and PDF files
- Some important features of the system were Data representation tree, User rights system, Multilingualism, Trash management interface, Sophisticated Search function and Template System

COURSE PROJECTS

Tum-Tum Tracking

August 2011 onwards

Undergraduate Thesis (B. Tech. Project)

Guide: Prof Purushottam Kulkarni

- Currently working on to develop a GPS based solution to track location of buses(Tum-Tum) in IIT Campus
- Further goals involve using this data for congestion management and better route planning

Automatic Vacuum Cleaner

Spring 2011

Embedded Systems Lab

Guide: Prof Kavi Arya

- Built a bot on the FirebirdV platform which automatically cleans a room, when placed anywhere in room
- Developed two **heuristic algorithms** for optimizing the path traversed by the bot to clean the room
- Used an overhead camera and Matlab software for detecting obstacles in the path of the bot

Club Management System

Autumn 2010

Database and Information System

Guide: Prof. S. Sudarshan

- Conceptualized an integrated platform for users to get **consolidated updates** about various social clubs' events; incorporated user-friendly features to publicize and manage events online
- Conceived the idea of **personalized web robots** for every user to **fetch tailor-made events' updates**
- The platform was integrated with **Google Chat** for easy availability of updates
- Designed the database model which ensured most efficient utilization of given hardware resources

Nestle India – A Case Study

Spring 2009

Marketing Management

Guide: Prof Dinesh Sharma

- Reviewed market segmentation, product positioning & product pricing strategies of Nestle India
- **Conceived a new product idea** and devised a detailed marketing strategy for the same

OTHERS

- Implemented Knuth's Algorithm (or DLX) to Solve **Exact Cover Problems** like Sudoku and N-Queen
- Researched and gave a presentation on **Optimization of Supply Chain Management**
- Gave a presentation on **Cognitive Science and AI** as a part of Artificial Intelligence Course
- Built an OS Virtual Memory Simulator and **File System Simulator** using C
- Implemented Conway's Game of life on multi-processors using **Parallel Programming** (MPI)

EXTRA-CURRICULAR ACTIVITIES

- Awarded National Stock Exchange's Certification in **Securities Market, Financial Market & Mutual Funds**
- Organized the **National Sudoku Championship** Event as a **Techfest Coordinator** of **Competitions** in 2010
- Ensured smooth functioning of events as a **Mood Indigo Coordinator** of **Hospitality and PR** in 2009
- Won **iPad Tech Challenge** Award for Large **Data Set Visualization** project in **CTOF 2011** held at Intuit.
- Secured **2nd** place in F1 Robot **Car Racing** Competition organized by Technic, IIT-Bombay
- Secured **1st** place in U-Turn Boomerang making competition in Zephyr 2008, IIT-Bombay
- Participated in research program for KVPY scholars at Harishchandra Research Institute, Allahabad(2007)
- Organiser in Marketing Team - Techfest 2009 and Hospitality Team - Mood Indigo 2008

RELEVANT COURSES

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|-------------------------------------|------------------------------|
| • Probability and Random Process | • Accounting and Finance |
| • Linear Optimization | • Operations Management |
| • Cryptography and Network Security | • Marketing Management |
| • Foundations of Machine Learning | • Advanced Computer Networks |

TECHNICAL SKILLS

- **Programming Languages:** C, C++, Objective-C, MIT Scheme, Java, MIPS, MATLAB, Perl, Bash, Shell
- **Web Development:** HTML/CSS, JavaScript, PHP, JSP
- **Database :** MYSQL, JDBC, ODBC
- **Operating Systems:** Microsoft Windows, GNU/Linux and Mac OS