



Sagar Chordia
Computer Science & Engineering
Indian Institute of Technology, Bombay

09005013
UG Third Year (B.Tech.)
Male
DOB: 14 December,91

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	9.62
Intermediate/+2	Maharashtra State Board	Sir Parashurambhau College	2009	90.17
Matriculation	Maharashtra State Board	Muktangan English School	2007	91.38

ACADEMIC ACHIEVEMENTS:

- Department **rank 4** out of 75 students after second year.
- Secured **All India Rank 82** in IIT Joint Entrance Exam (2009) out of about 4 lakh entrants.
- Secured **All India Rank 119**, State Rank 16 in AIEEE (2009) out of about 10 lakh entrants.
- Secured **AA** grade in Graph Theory course (only 2 out of 42 students). Awarded **AP** grade (exceptional performance) in the Modern Physics course.
- Secured 12th rank in onsite and **12th rank** in online **ACM International Collegiate Programming Contest Regionals-2010** held at Amritapuri, Kerala.

OLYMPIADS:

- Awarded **Gold medal** in **Indian National Physics Olympiad (InPhO)**, **2009** for being among the top 37 candidates out of 34707 candidates.
- Awarded **Gold medal** in **Indian National Chemistry Olympiad (InChO)**, **2009** for being among the top 35 candidates out of 29165 candidates.
- Placed in National top 1%.in **Astronomy Olympiad** -2009. Qualified **RMO**,2008 (Regional Mathematics Olympiad) and selected for INMO (Indian Mathematics Olympiad).

FELLOWSHIPS AND SCHOLARSHIPS:

- Honored with prestigious **KVPY** (Kishore Vaigyanik Protsahan Yojana) fellowship in 2007, by Indian Institute of Science (IISc), Bangalore. Scholarship awarded to only **125 students** in India.
- Awarded **NTSE** (National Talent Search Examination), scholarship awarded to **top 750** students across India.
- Received IIT Institute scholarship for outstanding Academic performance. Awarded CBSE merit scholarship for excellence in AIEEE.

INTERNSHIP AND PROJECTS:

- **INRIA-Sophia Antipolis, France - Pierre Alliez**, Senior researcher, **Geometrica** group <http://www-sop.inria.fr/geometrica/> – Internship, May 2010 till July 2010 on:
Shape Approximation and reconstruction using Visibility
 - Developed and implemented algorithm for constructing minimum-vertex piecewise-linear approximation of boundary of all 2-D objects inside tolerance volume.
 - Concepts like minimum nested polygon, minimum link path, visibility graph were used to explore this new approach of shape reconstruction.
 - Programmed and verified results using CGAL library, VisiLibity library, OpenGL and Qt. Extended method to a direction in 3D case.
- **Map interface using K-dimensional (Kd) Tree data structure:** *Course Project, CS 293*
 - Given a map, points are extracted from it and stored it in Kd- data structure.
 - Using this data structure methods like location of point, nearest neighbour of point, clustering in map etc could be computed efficiently in logarithmic times.

- **Reversi** *Course project (Spring 2010)*
CSE Dept., IIT Bombay
Guide: Prof. Amitabha Sanyal,
 - Simulated Reversi (Othello), a board game involving abstract strategy in the **functional programming** language 'Dr Scheme'. The program allows user to play against computer which uses **Minimax algorithm**, with **Alpha-Beta pruning** for efficiency, with many other optimizations.
- **UID (Universal Identification Project) for IITB** *Course project (Autumn 2009)*
CSE Dept., IIT Bombay
Guide: Prof. Deepak B. Phatak
 - Created a "Duplicate Detection" module in *mini-UID*, a unique identification project (using Finger-print as unique identifier) in C++. The main idea in the project was to compare polar coordinates of minutiae in fingerprint by using rotation in different reference frames and principle of invariance of centre of mass.
- **Technical Projects**
 - Designed and engineered glider, autonomous glider launcher and initiator using only stored mechanical energy and thus winning second prize in General Championship-I.
 - Awarded for writing two technical essays for product design competition on improving efficiency of internal transport system in IITB.

POSITIONS OF RESPONSIBILITY:

- DAMP (Department Academic Mentor Programme) *2011-2012*
 - Part of core team responsible for guiding and mentoring academically backward students of Computer Science department.
- Technical Secretary of Hostel *2010-2011*
 - (Coordinator of 450 hostelmates in institute level technical activities).
 - Led hostel to **first** position in overall Technical General Championships.

EXTRA-CURRICULAR:

- TECHNICAL
 - Awarded the **Institute Technical Special Mention, 2011** and **Hostel Technical Colour, 2011** for excellence in various technical activities.
- AWARDS
 - Felicitated with 'The Times of India'-Student of the year award, 2006. Award was given to only one student across all schools in Pune under TOI-NIE programme.
 - **Most creative student award** in school in 2006, Best boy student award in school in 2007.
 - Awarded **Hostel special mention** for **excellent Organizational work** as Technical secretary (2010-2011)
- ADVENTURE SPORTS:
 - 26 day Trek in Himalayas under *Basic Mountaineering Course* conducted by ABVIMAS, Govt. of Himachal Pradesh, India. Got A grade and Best Rope Award in this camp.

COURSES TO BE COMPLETED BY SUMMER -2012:

- **Pursuing Minor in Statistics.**
- **Major Core Courses**
 - Graph Theory, Automata theory and Logic
 - Database and Information Systems, Operating Systems, Computer Architecture, Computer Graphics
 - Computer Networks, Artificial Intelligence, Embedded Systems.
- **Relevant Non-core Courses**
 - Calculus, Differential Equations, Linear Algebra, Introduction to Numerical analyses.
 - Introduction to statistical analysis, Economics, Marketing Management