Sivakanth Gopi			09005043	
Computer Science & Engineering			UG Third Year (B.Tech.)	
Indian Institute of Technology, Bombay			Male	
			DOB: 21 Sep 1991	

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	9.78
Intermediate/+2	CBSE	Z.S.S Secondary School	2009	93.00
Matriculation	APBSE	Aditya Public School	2007	91.70

INTERESTS

- Algorithms, especially Geometric, Randomized and Mathematical algorithms
- Computability and Complexity Theory
- Game Theory, Logic and Automata Theory
- Mathematics (Topology, Combinatorics, Graph Theory, Analysis)
- Quantum Physics and Quantum Computing

PROJECTS AND INTERNSHIPS

- **Research internship** at **IST Austria**:
    - **Simulation and Bisimulation metrics on ω-Automata** over **metric** Σ: Topological properties, Completeness, Midpoint maps and other properties
    - Decidability of **Regularity** in **Counter Additon Systems**

    Guides: Prof.Thomas A. Henziner, IST Austria ; Pavol Černý, IST Austria   [Summer 2011]
- Reading project on **Fourier Analysis of Boolean Functions**
    Guide: Prof.Prahlad Harsha, STCS, TIFR Mumbai   [Winter 2010]
- Implemented a small scale **web-search engine** with data structures for efficient retrieval and ranking for pages based on page-rank algorithm
    Guide: Prof.Om Damani, CSE Dept.,IIT Bombay   [Autumn 2010]
- **Nurture program for Advanced Mathematics** at **Indian Statistical Institute (ISI),Kolkata**
    Organiser: National Board for Higher Mathematics (NBHM)   [Summer 2010]
- A fast **Data Compression** algorithm specifically for large text files based on **LZW** Compression algorithm, coded in **MIT scheme**
    Guide: Prof.Amitabha Sanyal, CSE Dept., IIT Bombay   [Spring 2010]
- A fast algorithm for **Point Pattern Matching** using **invariants** with specific applications to **Finger Print Matching**, coded in **C++**
    Guide: Prof.Deepak Phatak, CSE Dept., IIT Bombay   [Autumn 2009]

SCHOLASTIC ACHIEVEMENTS

- Currently **ranked** 1st out of 75 students in the Dept. of CSE, IIT Bombay
- Awarded **Institute Academic Prize** for the year 2010-11 by IIT Bombay
- Awarded **AP grade** (for outstanding performance) in **Linear Algebra**, **Modern Physics** and **Analysis** courses in my first year at IIT Bombay
- Represented India and won a **Gold Medal** in the **International Physics Olympiad-2009** held in Mexico, **International rank:** 2nd in Theoretical Problem Solving and 7th in overall performance
- All India 3rd **rank** in **IITJEE-2009** taken by about 385000 students. All India 4th in **AIEEE-2009** taken by about a million students, all India 1st in **VITEEE-2009**
- **Global Winner** in **Green Olympiad**, organized by **TERI** under the **Ministry of Environments and Forests, Government of India**
- **Gold medal** in **Indian National Astronomy Olympiad-2009** for being among the top 35 students in the country
- All India 3rd in **National Science Olympiad-2006**
- Secured state 1st rank in **Ramanujan Mathematics Olympiad**

SCHOLARSHIPS

- Awarded the **Aditya Birla Scholarship 2009**, which is awarded to only 10 Engineering undergraduates in the country
- Awarded **Kishore Vaigyanik Protsahan Yojana (KVPY)** fellowship, National fellowship for students interested in science by **Department of Science and Technology, Government of India**, under **Indian Institute of Sciences (IISc)**
- One of the 25 students from India to be offered **A-star Youth Scholarship** by Agency for Science, Technology and Research, Government of Singapore
- Awarded **NTSE(National Talent Search Examination) scholarship** by National Council of Education Research and Training (NCERT)

ADDITIONAL COURSES

Probability and Random Processes	General Topology
Graph Theory(Networks,Embeddings)	Linear Algebra
Real Analysis	Convex Optimization
Combinatorics	Quantum Mechanics II
Algebra(Groups, Rings, Fields)	Economics

COMPUTER SKILLS

- Programming: C, C++, Perl, MIT Scheme
- Others: HTML, SQL, Scilab

TEACHING

Teaching Assistant for:
- **Linear Algebra**   [Spring 2011]
- **Modern Physics** [Fall 2011]

POSITIONS OF RESPONSIBILITY

- **Team Leader** for a team of 20 students working on the Point Pattern Matching program in the my first year at IIT Bombay
- Organiser for Puzzle Hut- a **math puzzles** competition in Techfest-2010, IIT Bombay

EXTRACURRICULAR ACTIVITIES

Academic
- 2nd in institute level Scilab coding competition in IIT Bombay
- Participated in Yahoo Hack-U competition

Literary Activities
- 3rd in Terra Quiz-2005, a National Environmental quiz conducted by Ministry of Environments and Forests, Government of India
- 3rd in Debating in Freshiezza-intra college event for freshers
- Finalists in All That Matters-a puzzle solving and paper presentation event held in Malhar-2010, cultural festival of St.Xaviers College, Mumbai
- Consolation prize in Creative Writing college event

Arts and Sports
- Completed a one year course in Violin under National Sports Organisation (NSO)
- Won prizes in several school level events like Painting, Poem writing and Debating
- Interested in Cricket, Tennis and Pool