l Skill

Skills

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| Scholastic Achievements |

* Secured **AIR-1** in **ICSE** Board Examination (2008)
* Got **AIR-5** in **NSTSE** (National Science Talent Search Examination) conducted by the Unified Council. (2009)
* **Regional topper** in **CBSE** Board Examination with merit certificate in mathematics (awarded to **top 0.1 %** of the appeared students) (2010)
* Secured an All India Rank of **631** in IIT JEE and **245** (state rank **12**) in AIEEE (All India Engineering Entrance Examination) (2010)
* Pursuing an **honors** in **Physics** (5 additional courses) and a **minor** (5 additional courses) in **Management**

Project Work and Technical Skills

**Projects :**

* **Identification of the Higgs boson through cross-section correlations using CalcHEP**

(Summer 2012)

* A **computational** project using a software called **CalcHEP** (used for simulations in High Energy Physics) under the guidance of Prof Sreerup Raychaudhari of Dept of Theoretical Physics, **TIFR** (Mumbai)
* Generated **cross-sections** of different processes involving **proton –proton collision**s at very high energies and which are supposed to produce the mysterious ‘**Higgs**’ boson. This was done for several models in the present day High Energy Physics like Standard Model, MSSM, NMSSM, Sugra and AMSB, Littlest Higgs model, etc. (run over specific parameters in their theoretically possible ranges in each model) and corresponding graphs was plotted
* Can be used to **predict the model** in which our observation falls based on experimental data
* **Chaos and Music :** (Autumn 2011)
* Completed as a part of course work of the course on **Non Linear Dynamics** taken by Prof Punit Parmananda
* Generating **new pieces of music** from the existing ones using **chaos** and the concept of **attractors**. This can be of great use to the musicians to give them new tunes from previous ones for practice
* Got **the highest grade** in the project in a class of 40
* **Graph Plotter :** (Spring 2011)
* Done as part of an introductory course on programming and computer science (CS 101)
* plots graphs for various basic functions like polynomials, exponential, logarithmic, sinusoidal, etc. using **FLTK**

**Technical Skills :**

* **Programming languages** known : **C++ , Java**
* Can work on **Windows** and **Linux** operating systems

Courses Undertaken

(The courses marked \* will be completed by the end of November 2012)

**Core** :

Modern Physics

Electricity & Magnetism ­­­­­

Optics

Photonics\*

Classical Mechanics

Non Linear Dynamics

Quantum Mechanics I

Quantum Mechanics II\*

Waves & Oscillations & Thermodynamics

**Labs :**

General Physics Lab

Electronics Labs : Electronics Lab I

Analog Electronics lab

Digital electronics lab\*

Microprocessors lab\*

**Breadth** :

Mathematics I: Vector Calculus  
      Mathematics II: Linear Algebra and Differential Equations  
      Introduction to Electrical and Electronics Circuits  
        Mathematics III: Complex Analysis  
Numerical Analysis

Data Interpretation and Analysis

Computer Programming and Utilization

Positions of Responsibility

* Worked as a **Convener** for the **Stud-e club IIT Bombay**, a group of enthusiastic students and a few professors who organize workshops and inspirational lectures guiding students lead a healthy student life

Extra Curricular Interests

* Took active participation in **quizzing events** at school and won several regional level prizes for the same
* Proficient in **Vocals** and **playing keyboard**
* Adept at **Pencil sketching** and **pot painting**
* Has a keen interest in reading **spiritual and inspirational literature**
* Completed an **NSO** course in **yoga**
* Others : Poetry, Philosophy, Photography