MYPAGE: `www.cse.iitb.ac.in/~suryatej`

ACHEIVEMENTS

Credentials

- Secured **All India Rank 46** in JEE Advanced out of 150,000 candidates *[2014]*

- Scored **99.97** percentile in **JEE-Mains, B.Tech** amongst 1.3 million candidates *[2014]*

- Scored **99.47** percentile in **JEE-Mains, B.Arch** amongst in JEE Mains (B.Arch) *[2014]*

- Secured — rank in AP-EAMCET amongst 200,000 candidates *[2014]*

- Pursuing a **minor** in **Electrical** at IIT Bombay

Olympiads

- Secured **All India Rank 22** in South Indian Mathematics Olympiad *[2012]*

- Secured **All India Rank 12** in International Master Mathematics Olympiad *[2010]*

- Secured a State Rank 14 in State Level Science Talent Search Examination held by Suchindra Foundation *[2012]*

- Secured a International Rank 596 in International Mathematics Olympiad held in about 7000 schools across many countries in Asia *[2012]*

PROJECTS

Rube Goldberg Machine (Sep '15 - Present)
Guide: Prof. Sharath Chandhran *IIT Bombay*

- Formulated a **Rube Goldberg Machine Game** with a simple car that moves on a track with multiple constraints like friction and speed controls with the arrows control and situations like rolling, collusions and pulleys

- Programmed using **Box2D** , a physics simulation engine on C++ platform

Sudoku Autosolver (Fall 2014)
Guide:"Padma Shree" Deepak B Phatak and Prof. Supratik Chakraborthy *IIT Bombay*

- Solves any Sudoku and gives the result if correct

- Used to the simple cpp to design the graphics of the program

Projector Keyboard (May '15 - Jun '15)
Institute Technical Summer Projects 2015 *IIT Bombay*

- Made a prototype of the projector keyboard using **openCV-python** and two web cameras under INR 2000

- Developed the algorithm for finger touch detection and for numerous number of keys

- Worked as a member of a three membered team

INTERESTS

- Data Structures and Algorithms
- Image Processing
- Discrete Structures

SOFTWARE & PROGRAMMING SKILLS

- **Programming Languages:** C/C++,Python,Bash
- **Web Development:** HTML,CSS,Javascript
- **Softwares:** openCV-python, LATEX, MATLAB, Inkscape, gnuplot, AutoCAD

COURSES UNDERTAKEN

- **Computer Science:** Data Structures and algorithms + Lab*, Software Systems Lab*, Discrete Structures*, Data Analysis and Interpretation*, Digital Logic Design + Lab**, Design and Analysis of Algorithms**, Logic for Computer Science**, Computer Networks + Lab**, Computer Programming and utilization, Abstractions and paradigms for programming, Programming paradigms lab

- **Electrical:** Introduction to Electrical and Electronic circuits*, Signals and Systems*

- **Maths:** Calculus,Linear Algebra,Differential Equations

- **Other courses:** Quantum Physics and its applications,Basics of Electricity and Magnetism, Engineering Drawing

    Course to be completed by Nov '15
    *** Course to be completed by Apr '16*

EXTRA-CURRICULAR ACTIVITES

- Participated in Clothes donation drive in IIT Bombay under **National Service Scheme** with collection of around 3500kg from whole campus and donated them to welfare of J&K flood victims and the construction workers in our campus

- Participated in medicine donation drive and buddy program to understand construction workers problems for a whole year under **National Service Scheme**

- Participated in a scientific toy making session to create interest in science among children

- Worked as an organiser under informals department for **Mood Indigo 2014** IIT Bombay

- Worked as an organiser under lecture series department which lectures by emminent personalities like Bjarne Stroustrup, Ada Yonath **Techfest 2014** IIT Bombay

- Participated in a Skit in Telca at IIT Bombay 2014

- Participated in a skit by National Service Scheme to spread awareness among children at IIT Bombay 2015

- Was awarded a Certificate of Social Service by HelpAge India in 2006