

ACADEMIC ACHIEVEMENTS

- Pursuing **Majors and Honors Degree in Computer Science and Engineering** and **Minors Degree in Biosciences and Bioengineering**. [2015]
- Attended **Orientation cum Selection Camp**, for **International Physics Olympiad** at **HBCSE, TIFR**. [2013]
- Awarded the Gold Medal and Certificate of Merit for being among **top 35** candidates at **NSEP-Indian Physics Olympiad-2013** all over India. [2013]
- Secured **All India Rank 315th** in **JEE Advance 2013** out of 1.4 million candidates. [2013]
- Awarded certificate of merit for being among top 1% in the state in **National Standard Examination in Chemistry** and **National Standard Examination in Physics**. [2012]
- Awarded **Certificate of Merit** in Physics and Chemistry for being among top **0.1%** students in CBSE Class XII Examination. [2013]
- Secured **18th National rank** and **1st Regional Rank** in **13th KV National Junior Mathematics Olympiad**. [2010]
- Qualified for **ACM-ICPC 2014-15 regional onsite contest** held at Amritapuri. [2014]
- Secured **All India percentile 99.7** in **JEE Main**. [2013]

PROJECTS AND EXPERIENCE

Parity Games and Algorithm

Summer 2015

Summer Research Project

Prof. Ashutosh Trivedi

- Studied the fundamentals of **parity games** and exponential algorithms for solving parity and similar games, especially **Zielonka's Recursive** and **Strategy Improvement Algorithm**.
- Worked with randomization and **dominion forming** techniques for improving the algorithm's complexity to subexponential expected/upper bounds.

Country-Attribute Pair Identification Using Supervised Learning

Autumn 2014

Data Analysis and Interpretation

Prof. Ganesh Ramakrishnan

- Used statistical data from countries as **training data** to extract relations expressed in random sentences. Assigned **confidence values** to the extracted data of country-value pair.

WiFiChat(Wireless Chatting Application)

Summer 2014

Institute Technical Summer Project

IIT Bombay

- An app based on WiFi direct which allows public group chat.
- The range of the app is not limited by WiFi range as rather than having permanent WiFi connection the application dynamically create them for sending messages(i.e. creates a hopping network).
- Used **hashvalues** while using **Network Service Discovery** to identify unsynced neighbours.

Data Visualization Web Applications

Jeevomics Pvt. Ltd.

Winter 2014

Ankit Malik

- Developed web services to generate dynamic visualizations from diabetes diagnosis data using **google maps APIs** and **python flask** backend.
- Added functionality to asynchronously render new charts when changing the location over the maps.

Computer Simulation of Dyenin Motors

Computational Biology Lab

Spring 2015

Prof. Ambarish Kunwar

- Used computer simulations to study the movement of randomly attached Dyenin motors over Cellular Microtubules with a rod like cargo.

Collision Graphic Simulator

Computer Programming and Utilization

Autumn 2013

Prof. Supratim Biswas

- Designed a graphic simulator for Carrom game using simplecpp library in C++, which used **Priori Collision Detection Method**.

TECHNICAL SKILLS

Computer Languages

- **Proficient** C/C++, Python
- **Amateur** R, Fortran, VHDL
- **Intermediate** Java, Bash, Prolog, SQL

Application Development

- **Proficient** HTML/XML, JavaScript
- **Amateur** Android API's, Ajax, JQuery, D3, Google Maps/Chart APIs,
- **Intermediate** Python-Flask

Tools

- Scilab/Matlab, L^AT_EX, Cmake, SMT-Solvers, Solidworks, autoCAD, Xilinx ISE, openGL

RELEVANT COURSES COVERED

Computer Science

- Abstraction and Paradigm in Programming, Design and Analysis of Algorithm, Foundations of Machine Learning, Artificial Intelligence*, Discrete Structures, Data Structures and Algorithm, Computer Graphics*, Digital Logic Design, Logic for Computer Science, Computer Networks, Computer Architecture*, Databases and Information Systems*, Data Analysis and Interpretation.

Mathematics and Statistics

- Introduction to Probability Theory, Calculus, Linear Algebra, Differential Equations.

Biosciences and Bioengineering (Minors)

- Bioinformatics(Coursera - UC San Diego), Molecular Biology*, Metabolism and Bioenergetics

POSITIONS OF RESPONSIBILITY AND EXTRA CURRICULAR ACTIVITIES

- Teaching Assistant for Physical Biology under Prof. Ranjith Padinhateeri. [Autumn 2014]
- Represented Hostel and was member of Best Freshmen team in **Coding General Championship**. [Spring 2014]
- Awarded certificate of merit in Green(Environment) Olympiad. [2010]

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*Courses will be completed by the end of autumn 2015.