

ARCHISHA ABHIJEET PATKI

ACADEMIC PROFILE

Degree/Certificate	Institution	Percentage/CGPA	Year
IDD	Physics IIT (BHU), Varanasi	7.63	2020
CBSE (XII)	Maa Bharati Sr. Sec. School	93.80	2015
CBSE (X)	Nasik Cambridge CBSE School	95.00	2013

SKILLS

- **Languages:** C++, Python, SQL
- **Software:** MS Excel, MATLAB, MySQL, Adobe Photoshop
- **Areas of Interest:** Data Analytics, Statistics, Operations
- **Relevant Courses:** Introduction to Industrial Management, Macro Economics, Computational Physics, Forecasting and Time Series Analysis

INTERNSHIP/TRAINING

University of Alabama at Birmingham, USA May 2018 - July 2018

- Obtained various parameters of cellular transport reactions by fitting the results of a simulation with FRAP experimental data
- **Published a poster** titled *Biochemical dynamics of Vesicle Formation: FRAP experiments and Kinetic Monte Carlo Simulation* which was presented at a conference at the University of Illinois, Chicago

National Centre for Radio Astrophysics (TIFR), Pune May 2017 - July 2017

- Gained significant knowledge about the concepts of astronomy and used **MAGPHYS** to classify database of galaxies on the basis of spectral energy distribution

PROJECTS

M.Tech Thesis Jan 2019 - Current

- Pseudopolar decomposition of Mueller-Jones matrix to obtain various parameters and transmission properties of polarized light
- Practical applications of polarization control in case of complex optical media

UG Project Jan 2018 - Dec 2018

- Derivation of the equation for thermal instability of the interstellar medium
- Verified the results of the derivation by plotting various Pressure vs Temperature curves using Python

POSITION OF RESPONSIBILITY

Secretary of Astronomy Club, Science and Technology Council July 2017 - April 2018

- Raised Rs. 1.5 lakhs through alumni fundraising as a part of the **SERAI initiative** which gives club members immense opportunities to advance their knowledge and work in projects across India
- Organized **20 theoretical and observational workshops** resulting in the addition of new members to the club
- Responsible for the addition of 4 astronomical devices in the club inventory

Event Management Lead of Jigyasa '17

- Oversaw the smooth functioning of Jigyasa'17 - The Annual Physics Convention held at the Department of Physics

Coordinator of Technex '17 and Technex '18

- **Increased participation by 100%** by handling the publicity of the events
- Constructed the problem statements for the events of Astronomy Club
- Managed the logistics for the smooth execution of the fest

HONOURS AND ACHIEVEMENTS

- Secured **Gold medal** in Spardha 2015 and **Silver medal** in Spardha 2016 in Basketball
- **Won** the group dance competition in Jhankaar 2016
- **Won the second prize** in the group dance competition in Jhankaar 2018
- Initiated the construction of the **first planetarium in the BHU campus**
- Secured All India Rank 41 in GATE 2019
- Secured All India Rank 4832 in Joint Entrance Examination 2015

EXTRA-CURRICULAR ACTIVITIES

- Participated in **Inter IIT Sports Meet 2016 (IIT Kanpur)** as a part of the Basketball team
- Participated in **Inter IIT Tech Meet 2017 (IIT Madras)** as a part of the Astronomy Club team
- Participated in **Techkriti 2017 (IIT Kanpur)** as a part of the Astronomy Club team

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