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ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks(%)
2023	B.Tech in Biochemical Engineering & Biotechnology	Indian Institute of Technology Delhi	6.450
2019	BSEB	Rajendra College, Chapra	88.8%
2017	BSEB	Dr. R. B. Singh H/S, Bishnupura	83.4%

WORK EXPERIENCE

- **Founder & CEO, AIxB World** [June'2023-Current]
  - Focused on Developing machine learning algorithms focused on genome domestication and minimal genome editing technologies.
  - Managed a team to create innovative solutions for improving efficiency and accuracy in genetic modifications.
- **Volunteer, iMeditate IIT Delhi** [Jan'2023-May'2023]
  - Organized and facilitated meditation sessions for students, enhancing their mental wellness and stress management skills.
  - Coordinated events and workshops, improving the club's outreach and participation.
- **Teaching Assistant, IIT Delhi** [May'2023]
  - Taught R programming to professors, assisting in the development of their data analysis skills for academic projects.

PROJECTS

- **Optimisation of Protein Production in *E.Coli* (Prof. K.J. Mukherjee)** [Aug'2022-Nov'2022]
  - Developing a **MATLAB model** of standard *E.Coli* cell to obtain high protein production for specific substrate flowrate
  - Finding an Equation between Protein Production and substrate flowrate using **MATLAB** at ideal growth conditions
- **Microscopy and PIV analysis of active matter (Prof Anita Roy)** [April'2022-May'2022]
  - Transformed pREpZ in *B. subtilis* and grown the cells at 37°C under antibiotic pressure of Cefalexin, Kanamycin, etc.
  - Prepared High concentration of pREpZ transform *B. subtilis* and observed under various microscopes such as Flurosecece, etc.
  - Used **ImageJ software** for Particle Image Velocimetry analysis and observed various movement patterns in active matter
- **Temperature optimization for the production of Interleukin VI (Prof. K.J. Mukherjee)** [June'2022-July'2022]
  - Cloned IL-6 Gene from pBAD24 into pMAL p2x plasmid and transformed it into *E. Coli* BW25113 competent cells
  - Monitored the Protein Production by *E.Coli* BW25113 Strain at various temperatures regularly for about 10 days
  - Used Agarose Gel Electrophoresis, Polyacrylamide Gel Electrophoresis, and Gel Documentation Unit for Analysis of DNA
- **Matlab Simulink model for the cascade system of genes & metabolic pathways (Prof. James Gomes)** [Mar'22-Apr'22]
  - Created MATLAB simulink model for clavulanic acid biosynthesis pathway
  - Constructed the MATLAB Simulink model for the cascade system of genes
  - Simulated the dynamic and steady-state profiles of reporter and repressor protein
- **Walking stick cum chair (Prof. P.V. Madhusudhan Rao)** [Oct'2019 -Nov'2019]
  - Engineered and manufactured a portable and convertible walking stick cum chair, utilizing technologies like 3D printing and a lathe machine, and tested the designed prototype on volunteers, improving the design based on feedback.
- **Summer Project at RuTAG IIT Delhi (Prof. S.K. Saha)** [July'2022-Aug'2022]
  - Surveyed local vendor issues and developed a smart vending cart design to enhance product shelf life of fruits, vegetables.

SKILLS

- **Programming Languages:** C, C++, Python, R, SML, HTML, CSS
- **Technologies:** MATLAB, Simulink, Autodesk Inventor Professional, MS Office, VMD, Google Colab, AlphaFold
- **Technical Skills:** Basics of data structures and algorithms, web development, machine learning
- **Soft Skills:** Leadership, Teamwork, Problem-solving, Communication

ACHIEVEMENTS

- Initiated measures to combat cheating at IIT Delhi leading to the adoption of mixed seating arrangements for better integrity.
- Introduced official Past Year Questions (PYQs) collection by Dean Academics for equitable student access.
- Offered a Research Associate position at IIT Delhi, KSBS Sciences under Prof. Aditya Mittal (not accepted). [July' 2023]
- Received job offer for teaching physics at ALLEN Career Institute during campus placements (not accepted). [Dec'2022]

EXTRA CURRICULAR ACTIVITIES

- **OCS Volunteer** (OCS Volunteer ECA 2020-21): Helped in OCS placement activities [Aug'2019-Mar'2020]
- **YouTube Channel:** Creator with 500+ subscribers, focusing on educational videos related to technology and society.
- **Medium Writer:** Published several articles on biotechnology, AI, future, society, criticism.
- **Twitter Influence:** 400+ followers, actively engaging and sharing insights on biotechnology and technology trends.