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RESEARCH INTERESTS

A highly motivated 2nd-year BS-MS Chemistry student at the National Institute of Technology Agartala, passionate about utilizing my strong background in Chemistry, Environmental Sciences, and Physics to make a positive impact. My research interests include computer-aided drug design using computational chemistry, reducing waste production through environmental nanotechnology, and prediction through machine learning.

I am eager to advance my skills and gain hands-on experience in these areas through a laboratory research internship. I am confident that such an opportunity will help me to further my knowledge and contribute to the advancement of my field.

- My existing research experiences demonstrate an ability to study and solve research problems independently.

LAB EXPERIENCE

UNDERGRADUATE   Dec 2021- Present

National institute of Technology Agartala.   *Tripura, India*

- Successfully performed acetylation of primary amines, resulting in the preparation of acetanilide.
- Conducted qualitative analysis of known acidic and basic radicals.
- Accomplished gravimetric estimation of compounds and determined acid strength.
- Identified and optimized lead compounds through experimentation.
- Synthesized beta-naphthyl benzoate from beta-naphthol.
- determined non-nitrogenous and nitrogenous functional groups from organic compounds.
- Extracted Lactose, Lycopene, Piperene, and Caffeine.

Education

BS-MS Chemistry, National Institute Of Technology Agartala.   2021 - Present

Coursework : Thermodynamics, Chemical kinetics and Chemical equlibrium, Enviornmental Pollution and Health, Chemistry of main group elements, Hydrocarbons, Stereochemistry, Material Sciences, Chemistry of oxygen and nitrogen containing organic compounds, Quantum Chemistry, Quantum and Molecular Computing, Python and C++ coding.

Senior School Certificate Examination(Class XII) : Himachal Pradesh Board Of School education.

Chemistry (91), physics (91), Mathematics (90), Computer Science(91), English core(93).   2021

Secondary School Certificate Examination(Class X) : Himachal Pradesh Board Of School education.

Social Science(86), English Core(90).   2019

Key Projects

1. **Effects of Process Parameters on Attainable Feature Heights in Photoinduced Maragoni Patterning.** (Dec-2022)

Online Course Projects

Periodic-table-density : Periodic table through Python(computational, Machine learning). (2022)

Delaney Solubility with Python+ Machine Learning .(2022)

Drug Discovery with rdkit package through Computational Chemistry, Project. (2022)

sci-roi Modeling.(2022)

Compton Scattering Material. (2022)

Photon Beam through a Material. (2022)

Fun projects with Python.(2022)

Interpolation : with Python. (2022)

Calclus basics.(2022)

Breast cancer : through Machine Learning .(2022)
natural-gas-volume : through Machine Learning . (2022)
air-quality-2 : through Machine Learning . (2022)
TitanicML.. : through Machine Learning . (2022)
wine ML : through Machine Learning . (2022)

Coding Skills

- Programming Language: Python, C++,LaTeX (and Overleaf).
- Operating System: Windows, MacOS, Linux
- Tools: Latex, Anaconda , Google Colab.

Workshops

- Attended 14 days workshop on nanotechnology organized in National Institute of Technology Agartala, taken by Proff. Anil kumar Saikia , *IIT Guwahati* and Proff. Panchanan Pramanic , *IIT Kharagpur*.   (Jan 2023)

Skills

Lab Techniques : Synthesis, quantitative and qualititative analysis, Microscopic techniques,
crystallization, Scanning and Tunneling Electron Microscope, Adsorption on nano-materials.
Programming languages : C++, Python.
Technical Skills : Machine Learning, Computational Chemistry.

Volunteering

Wecan- July 2022 - Present : Taught Poor and Underprivileged children about Environmental Sciences, daily life science, hygenation, and also always try to help others with my knowledge,Part of free coaching at my locality, designed graphics for Collage Club.