

# Harshita Kuntal

B.Tech - Chemical Engineering

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## Education

<b>Banasthali Vidyapith, India</b> <i>B.Tech in Chemical Engineering</i> GPA: 7.6/10	<i>Aug 2021 – May 2025</i> (Expected)
<b>Baluni Public School - Agra</b> <i>Higher Secondary (Science) - Percentage: 92%</i>	<i>May 2019 – Mar 2021</i>
<b>Ratanlal Phool Katori Devi Sr. Sec. School - Mathura</b> <i>High School - Percentage: 96%</i>	<i>Apr 2006 – May 2019</i>

## Experience

<b>Concordia University - Canada</b> <i>Intern</i>	<i>Montreal, CA</i> <i>Aug 2024 – Dec 2024</i>
<ul style="list-style-type: none"><li>Performed Cyclic Voltammetry and UV-VIS to study Alizarin Red S for energy storage.</li><li>Developed Pourbaix diagrams to optimize flow battery electrolytes.</li><li>Designed methods to protect reference electrodes in alkaline conditions.</li></ul>	
<b>IIT - Bombay (FOSSEE)</b> <i>Process Design Intern</i>	<i>Bombay, IN</i> <i>Dec 2023 – Feb 2024</i>
<ul style="list-style-type: none"><li>Developed and executed complex flowsheets for industrial process simulations.</li><li>Contributed to open-source chemical engineering software under the FOSSEE initiative.</li><li>Proficient in process modeling using Aspen, Aspen Plus, and Aspen Plus Dynamics.</li><li>Developed Peng-Robinson equation libraries for OpenModelica.</li></ul>	
<b>Indian Oil Corp. Ltd - Mathura</b> <i>Intern</i>	<i>Uttar Pradesh, IN</i> <i>May 2023 – June 2023</i>
<ul style="list-style-type: none"><li>Analyzed units at IOCL refinery, focusing on DHDS, DHVT, OHCU, and HGU processes.</li><li>Produced detailed reports and optimized refining processes through data-driven insights.</li><li>Strengthened analytical and collaboration skills in petroleum refining operations.</li></ul>	

## Relevant Skills

**Core Skills:** Process Simulation, DWSIM, Aspen HYSYS, Production Management, Safety Management  
**Additional Skills:** Communication, Problem Solver, Team-oriented, Analytical Skill, Leadership Adaptability  
**Languages:** English(Professional Working Proficiency), German(Elementary Proficiency), Hindi(Native)

## Projects

<b>Electrochemical and Spectroscopic Studies of Alizarin Red S for Advanced Energy Storage Systems</b>
<ul style="list-style-type: none"><li>Conducted comprehensive electrochemical studies using Cyclic Voltammetry (CV) and UV-Visible Spectroscopy to evaluate the redox behavior, stability, and pH dependency of Alizarin Red S for advanced flow battery applications. Developed Pourbaix diagrams and proposed strategies for reference electrode protection in highly alkaline environments.</li></ul>

## Achievements & Position of Responsibility

**Achievements:** Earned a merit based scholarship in higher secondary in a cohort of 200 students.  
**Position of Responsibility:** Technical Head, Innovative Chemical Engineer's Club