KUNAL CHANDRA

IIT Kanpur | B.Tech in Chemical Engineering | 2nd Year Undergraduate
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Education

Indian Institute of Technology Kanpur **2024 – Present**
B.Tech in Chemical Engineering CPI: 8.34 / 10.00
CBSE Class XII: 95%
CBSE Class X: 97%

Technical Skills

Programming Languages: C, C++, Python, MATLAB
Tools & Platforms: Git, Linux, MySQL, Arduino IDE, LaTeX
Computer Science: OOP, DBMS, Machine Learning, Natural Language Processing

Projects

Neural Machine Translation (English → Hindi) **Oct 2025 – Nov 2025**

- Built a sequence-to-sequence neural machine translation system using the Transformer architecture as part of the course project for *CS779: Statistical NLP* under Prof. Ashutosh Modi, IIT Kanpur.
- Experimented with RNN and LSTM-based architectures; achieved best translation performance using self-attention based Transformer models.
- Tech Stack: Python, NumPy, Pandas, spaCy, scikit-learn, PyTorch

Implementation of Research Paper: Self-Optimal Clustering using Threshold Function **Jun 2025 – Jul 2025**

- Implemented the research paper by Prof. Nishchal Kumar Verma from scratch as part of the course project for *EE656: Introduction to Machine Learning and Deep Learning*, IIT Kanpur.
- Developed the Self-Optimal Clustering algorithm, an improved variant of Mountain Clustering, and evaluated performance using cluster compactness metrics.
- Computed the optimizing threshold parameter using interpolation techniques.
- Tech Stack: Python, NumPy, scikit-learn

Achievements

- Secured **AIR 3701** in **JEE Advanced 2024** among over 1.8 lakh candidates.
- Scored **98.9 percentile** in **JEE Main 2024**.

Positions of Responsibility

Senior Executive, Techkriti IIT Kanpur **2026**

- Responsible for coordination with multiple teams and assisting in on-ground execution of technical events during Techkriti.

Relevant Coursework

Single Variable Calculus, Linear Algebra, Ordinary Differential Equations,Fundamentals Of Computing, Computer Methods For Engineers, Introduction to Electronics, Introduction To Machine Learning, Statistical Natural Language Processing