Sunij Singh Gangwar

2nd-Year Undergraduate
Department of Electrical Engineering

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🔗 Sunij Singh Gangwar | ⌂ Sunij225

Academic Qualifications

Year	Degree/Certificate	Institute	Performance
2023 - Present	B.Tech, Electrical Engineering	Indian Institute of Technology Kanpur	9.04/10
2023	CBSE) (XII)	Ryan International School, Raipur	95%
2021	CBSE) (X)	Kendriya Vidyalaya No.1, Raipur	93%

Academic Achievements

- Secured **All India Rank 2859** in **JEE Advanced** among the 1.8 Lakh shortlisted candidates from across the country — *June'2023*
- Secured **All India Rank 1315** in **JEE Main** among the 11.2 Lakh participants from across the country — *April'2023*
- Received the **Academic Excellence Award** for excellent academic performance — *Dec'2023*

Professional Experience

JEE Student Mentor | *Physics Wallah* — *July'24-Dec'24*

- Guided more than 1200+ JEE aspirants and cleared all their doubts

Key Projects

Multi-modal Emoticon Classification | *Course Project* — *Aug'24 - Oct'24*

Prof. Piyush Rai | CS771 - Introduction to Machine Learning
- Developed a **Supervised Learning Model** integrating text sequences, deep features, and emoticons to perform multi-modal classification.
- Utilized One-Hot Encoding, TF-IDF, and deep neural network embeddings for feature transformation.
- Applied **PCA** for dimensionality reduction, enhancing computational efficiency and reducing model complexity

Continual Learning & Domain Adaptation (CIFAR-10) | *Course Project* — *Aug'24 - Oct'24*

Prof. Piyush Rai | CS771 - Introduction to Machine Learning
- Implemented a continual learning pipeline using **Learning with Prototypes (LwP)** classifiers for **CIFAR-10** image classification across 20 subsets with **varying and non-stationary distributions**
- Utilized pre-trained **ResNet-18, EfficientNet-B0, and kernel methods** to improve model generalization on challenging, evolving datasets
- Conducted detailed analysis using 10x20 accuracy matrices and demonstrated insights via visualization tools inspired by **NeurIPS/ICLR** research methodologies

Artificial Intelligence 101 | *Electrical Engineering Association, IIT Kanpur* — *Dec'24 - Jan'25*

- Analyzed and presented research papers: Deep Residual Learning for Image Recognition and Learning Transferable Visual Models From Natural Language Supervision.
- Gained a comprehensive understanding of the **attention mechanism** and its applications in machine learning

Algoarena 2.0 | *Programming Club, IIT Kanpur* — *May'24 - July'24*

- Solved assignments based on **Competitive Programming**
- Learned and applied various key concepts of competitive programming, including data structures, algorithms, and problem-solving techniques

Technical Skills

Programming Languages	C	C++	Python
Competitive Programming	Codeforces : LaukiSubg (max rating: 1510)
Frameworks/Libraries	Numpy	Pandas	Matplotlib	Tensorflow	Keras	Scikit-Learn

Relevant Coursework

* ≡ ongoing courses

Mathematics Courses	Partial Differential Equations	Linear Algebra	Ordinary Differential Equations
Computer Science Courses	Fundamentals of Computing	Introduction to Machine Learning
Electrical Courses	Introduction To Electronics	Signals Systems And Networks

Positions of Responsibility

Secretary | E-Sports Club — *June'24 - Present*

- Coordinated with club members and participants, handling logistics, event planning, and promotions
- Organized and managed various esports events, including tournaments for games like bgmi, asphalt, valorant and fifa, etc

Senior Executive | Udghosh'24 — *July'24 - Oct'24*

- Managed quiz participant registration and coordination with participants.

- Actively contributed to the planning and execution of the annual sports fest, coordinating various sports events and activities.

Extra-Curricular Activities

- Won gold medal in **Hockey** and in **E-Sports** in Freshers Inferno'23
- Represented Kendriya Vidyalaya No.1 Raipur in regional **Kho-Kho** tournaments twice in **2018,2019**