

# PEEYUSH AGARWAL

Delhi, India

## Education

**St. Columba's School**

CBSE Board (95%)

**2009 – 2022**

Delhi

## Experience

**RMSI**

**June 2024 – July 2024**

ML Intern

Noida, India

- Contributed to a crop classification project utilizing machine learning models and Sentinel-2 satellite data, achieving 94% accuracy with CatBoost classification model.
- Finetuned YOLOv9 to detect street lights from satellite images and achieved a precision of 93%.
- Collaborating with cross-functional teams to integrate machine learning models with geospatial data for improved decision-making in crop management.

## Projects

**PaperTok** | Python

- Generates engaging TikTok videos from research papers by integrating *Google Gemini* and *pyttsx3 TTS*
- Extracts key information from research papers using *PyPDF2* and generates script using Natural Language Processing (NLP) and Generative AI (GenAI) techniques
- Created engaging TikTok videos using *MoviePy*, combining voiceovers with visuals and animations

**Alexandria** | Python

- Semantic search engine for books using vector embeddings
- Embedded book summary, keywords, and genres of 25,000 book using the *Cohere embed-english-v3.0 embeddings*
- Implemented semantic search using cosine similarity and *K-Nearest Neighbours (KNN)*
- Improved the relevance of search results by understanding the context and meaning of the search query

**NanoGPT** | Python

- Implemented a transformer model with a *GPT-2* architecture from scratch
- Trained the model on *tiny-shakespear* dataset
- Implemented the core concepts of *Attention is All You Need* paper

## Technical Skills

**Languages:** Python, C++, SQL

**Technologies/Frameworks:** Machine Learning, Deep Learning, Natural Language Processing (NLP), Generative AI (GenAI), Computer Vision, Web Scrapping

**Developer Tools:** VS Code, Cursor, Replit, Google Colab

## Extra-Curricular Skills

**Google Developer Student Club (GDSC):** Member in Machine Learning and Web Development departments

**NSUT.AI:** Core member in Research and Machine Learning departments

**Devcomm:** Mentor in Machine Learning department