

**Ayan Banerjee**

✉ ayan292004banerjee@gmail.com

🔗 [LinkedIn](#)

💻 [GitHub](#)

## 👋 About Me

🎓 MSc in Data Science | 💡 Passionate about ML, DL & Statistics

📍 Based in India | 📁 Aspiring Data Scientist

I'm a Data Science postgraduate skilled in Machine Learning, Deep Learning, and Graph Neural Networks.

I love building real-world projects.

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## 🚀 Featured Projects

### 🎬 Movie Recommendation System with LightGCN

- Built a GNN-based movie recommender using PyTorch Geometric
  - Implemented BPR loss and normalized diffusion matrix on the MovieLens dataset
  - Compared GCN, GAT, and LightGCN
- 🔗 GitHub: [Movie\\_Recommendation\\_System](#)
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### 🎵 Music Source Separation using Enhanced U-Net

- Trained an Enhanced U-Net model on MUSDB18 to isolate vocals from audio
  - Used spectrogram transformation and augmentation in PyTorch
  - Trained and evaluated on GPU for high performance
- 🔗 GitHub: [Music\\_Segmentation](#)
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## Bengali OCR

- Used LeNet and ResNet models to recognize Bengali characters

 GitHub: [Bengali\\_Character\\_Recognition](#)

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## Heart Disease Prediction

- Used multiple ML algorithms for binary classification

 GitHub: [Heart-Disease-Prediction-using-Machine-Learning-methods](#)

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## Skills


- **Languages:** Python, R
  - **ML/DL:** Scikit-learn, PyTorch, TensorFlow
  - **Tools:** Jupyter Notebook, VS Code
  - **Data Tools:** Pandas, NumPy, Matplotlib, Seaborn
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## Education

### **M.Sc. in Big Data Analytics**

RKMVERI


 Howrah , India

 2023 – 2025 (Expected)

- Coursework: Machine Learning, Deep Learning, Statistics

### **B.Sc. in Mathematics**

Serampore College / Calcutta University

 Hooghly, West Bengal, India



2021 – 2024

- Relevant Topics: Mathematics, Statistics

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**Quote I Live By:**

*"Learning never exhausts the mind." – Leonardo da Vinci*