Arnab Banerjee

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⌗ github.com/the-blue-panther — in linkedin.com/in/arnab-banerjee-1740662a4

Summary

Math-driven AI enthusiast with hands-on experience in NLP, Deep Learning, and Big Data. Eager to contribute and grow through impactful internship opportunities.

Education

MSc in Big Data Analytics *2024 – Present*
Ramkrishna Mission Vivekananda Educational and Research Institute, India

MSc in Mathematics *2021 – 2023*
Dakshin Dinajpur University, India

BSc in Mathematics (Hons.) *2017 – 2021*
New Alipore College, University of Calcutta
Percentage: 78.63%

Higher Secondary (Class XII) *2015 – 2017*
Behala Aryya Vidyamandir (HS), WBCHSE
Percentage: 82%

Secondary (Class X) *2015*
Behala Aryya Vidyamandir (HS), WBBSE
Percentage: 89.86%

Skills

Languages: Python, C++, R, Java (beginner), LaTeX
Libraries/Tools: NumPy, Pandas, Scikit-learn, TensorFlow, Manim, Git, Jupyter
Concepts: Machine Learning, Deep Learning, NLP, Computer Vision, Hadoop, MapReduce, Data Analysis, Statistical Modelling

Projects

Speech-to-Text Script (Benglish NLP) *Completed*
Fine-tuned Whisper for Bengali-English code-switched transcription.
Tasks: Dataset creation, multilingual fine-tuning
Tools: PyTorch, Hugging Face, Librosa

Wine Quality Classifier *Completed*
ML model to classify red wine quality; achieved **89.5% accuracy** with Gradient Boosting.
Tasks: IQR filtering, feature selection, ROC-AUC eval
Tools: Scikit-learn, Pandas, Seaborn

Malaria Diagnosis (Computer Vision) *Ongoing*
CNN for malaria detection from blood smear images.
Tasks: Image preprocessing, data augmentation
Tools: TensorFlow, Keras, OpenCV

Experience

Math Tutor (Freelance) *2022 – Present*
Assisted high school and undergrad students in advanced math topics, including calculus, linear algebra, and probability. Created custom lesson plans using interactive tools.

Ongoing Learning

- 100 Days of Code: The Complete Python Pro Bootcamp – Udemy (In Progress)
- A Deep Understanding of Deep Learning (with Python intro) – Udemy (In Progress)
- Artificial Intelligence A-Z 2025: Agentic AI, Gen AI, and RL – Udemy (In Progress)

Interests

Anime, Football, Playing Guitar & Cajon, Thriller literature, Machine Learning & AI, Sitcoms, Fantasy fiction