

Ayush Kumar Manas

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Experience

- May 2023 – Present **Project Niramaya.** Machine Learning Intern: Pursuing a research project with a startup under the research programme by IIT Bhilai. It is 2 year long project funded by Government of India.
- Jul 2022 – Dec 2022 **Brane Enterprises.** Software Developer Intern: Building code less interactive coding platform by NSL Hub. Executed technologies such as Java and SpringBoot. Successfully tested and deployed 3 APIs on PostMan.
- SIH 2022 **Smart India Hackathon Finalist.** Video Classification and Meta Data Generation: Collaborated architectures like CNN, RNN, LSTM, ConvLSTM and LRCN. Use of models like ResNet50, ImageNet, LimbiumNet. Accuracy achieved of about 87%. **Led the team of 6 members.** Problem Organization: Indian Space Research Organization (ISRO).

Education

- Dec 2020 – Present **Bachelor of Engineering** Dayananda Sagar College of Engineering, Bengaluru, KA
CGPA: 8.9
- Apr 2018- Apr 2019 **Senior Secondary (XII) (CISCE)** City Montessori School, Lucknow, UP
Percentage: 93.75%.

Research and Collaborations

• Graph Theory

Researched on a problem related to classes of graphs which are radius invariant. Formulated an $O(1)$ complexity relation under the professorship of Dr. Chitra Ramprakash, Assistant Professor, Mathematics Department, DSCE.


• Adaptive ML models

On adaptive hyperparameter tuning inspired from Gemini native which has a test of 5% revenue lift on Yahoo.





Skills

- Languages **English** (Proficient), **Hindi** (Proficient), **Urdu** (Novice), **Sanskrit** (Novice)
- Programming Languages **Java** (Proficient), **C/C++** (Proficient), **Python** (Proficient), **SQL/MySQL** (Proficient), **R** (Novice), **HTML** (Intermediate), **CSS** (Intermediate), **JavaScript** (Intermediate), **Git/Github** (Advanced)

Skills (continued)

Tools/Libraries  Jupyter, GoogleColab, Kaggle, Springboot, GIT, NumPy, Pandas, ScikitLearn, TensorFlow, PyTorch, Keras, CNN, RNN

Projects

- Apr 2022  **Media Player and Image Processor**
Developed Media Player and Image Compression application using JavaFx and Java. Built on Java 19 functional on 32 bit and 64 bit operating systems.
Libraries: javafx, fxml, java.awt, java.io, javax.imageio
Software: SceneBuilder
Github Link: <https://github.com/Ayush8795/mediaplayerjavafx>
<https://github.com/Ayush8795/Media-player-and-Image-compressor.git>
- Aug 2022  **Video Classification Models**
Built video classification models using architectures: CNN, CNN+LSTM, CNN+RNN, LRCN, VGG16, MobileNet and Dense networks like InceptionV3.
Description: Deep Learning model extract frames and classify top 3 videos in 50 classes.
Github Link: <https://github.com/Ayush8795/videoclassification/tree/main>
- December 2022  **Image Classification Model**
Trained Image Classification Model. Accuracy: about 96%.
Github Link: <https://github.com/Ayush8795/image-classification/blob/78dcb681a7f657c061dd74a5cb7c7fe017af7ba4/FashionImageClassifier.ipynb>
- July 2022  **Speech Recognition Model**
Implemented speech recognition model for English to search for required query.
Accuracy: more than 90%.
Github Link: <https://github.com/Ayush8795/SpeechRecognition>

Certificates and Achievements

- Machine Learning for all. Link: Certificate link
- Participated and cleared national level prestigious examinations and olympiads like RMO, KVPY, JEE Mains and JEE Advanced.
- Among top 10 percentile of students in class XII board examinations.

Extracurricular Activities

- **Poetry.** Member of LitSoc official literary club of DSCE, Bangalore. Write poems in English and Hindi. Writing since 2013.
- **Part Time Teaching.** Voluntarily teach students of classes 8th to 12th on the subjects of Physics, Mathematics and Computer Science. Thus contributing my little in development of the educational biosphere