Nishant Valvi

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GitHub ✻ LinkedIn

Education

Master of Science (MS) by Research in Computer Science Engineering *IIT Kanpur*
Master's degree program *July 2021 - Present*
Grade: 7.66/10

Bachelor's degree in Computer Science Engineering *North Maharashtra University*
Bachelor's degree program *July 2016 - April 2020*
Final grade: 7.78/10
Capstone project: Plant Disease Diagnosis using CNNs - Developed an Android app for detecting plant diseases using convolutional neural networks

Technical skills

Programming Languages	C, C++, Java, Python
Deep learning frameworks	PyTorch, TensorFlow, Keras
Data analysis tools	NumPy, Pandas, Matplotlib
Database management	SQL, MySQL
Mobile development	Android Studio, Java
Version control	git

Project Experience

Image Clustering using Topic Modelling *CS657A Information Retrieval*
code *Prof. Arnab Bhattacharya*
This project uses topic modelling to cluster images based on their topics, using the Latent Dirichlet Allocation (LDA) algorithm to extract topics from image captions and assign them to images.
The project has potential applications in image organization and management, can be useful in various domains such as tourism, education, and social media.

Impact of Development Indicators on CO2 Emission *CS685 Data Mining*
code *Prof. Arnab Bhattacharya*
Analyzed the correlation and association rules between 100+ development indicators for 60 years of data and CO2 emissions using Python libraries such as mlxtend.
Identified the most significant development indicators affecting CO2 emissions. Provided actionable insights for policymakers and environmental researchers.

Active Learning for Deep Object Detection *CS776 Deep Learning for Computer Vision*
code *Prof. Priyanka Bagade*
This project proposes an active learning method for object detection that reduces labeling costs by selecting informative samples based on uncertainties. This improves performance and requires less labeled data for training, benefiting fields like Healthcare and Scientific research.

Plant disease detection using CNNs *Bachelor's Project*
code
Designed and developed an android app using a ResNet50 model trained on the Plant Village dataset to detect plant diseases. Efficient tool for early detection of plant diseases, leading to higher crop yields and economic benefits for farmers.