

Digital Naturalist

- AI Enabled tool for Biodiversity Researchers

TEAM MEMBERS

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ABSTRACT:

we are creating a web application which uses a deep learning model, trained on different species of birds, flowers and mammals (2 subclasses in each for a quick understanding)and get the prediction of the bird when an image is been given.

Project Requirement:

➤ Software Tools:

Anaconda Navigator

➤ Packages

Tensorflow

Keras

Flask

LITERATURE SURVEY:

Paper title / Authour	Technologies/ Algorithms	Merits	Parameter	FUTURE SCOPE
AI Naturalists Might Hold the Key to Unlocking Biodiversity Data in Social Media Imagery/ Tom A. August, Oliver L. Pescott, Alexis Joly, Pierre Bonnet	Artificial intelligence (AI) techniques for image classification, Flickr, deep learning	Useful to classify the image	Classifiy the image according to their Size	To increase the Prediction level.
Plant Identification Using Artificial Intelligence: Innovative Strategies for Teaching Food Biodiversity	Artificial intelligence, M-learning	It is used to safeguard the plant and crops to secure them.	Improved the data prediction and analysis	To improve and increase the accuracy level
The Convention on Biological Diversity as a legal framework for safeguarding ecosystem services/C. Prip	The Convention on Biological Diversity, Millennium	It is used for livelihoods enhancement, poverty alleviation, climate mitigation	Low Accuracy	Increase the Accuracy Level

<p>Ecological monitoring with citizen science: the design and implementation of schemes for recording plants in Britain and Ireland/O.L. Pescott, K.J. Walker, M.J.O. Pocock, M. Jitlal, C.L. Outhwaite, C.M. Cheffings, F. Harris, D.B. Roy</p>	<p>long-term monitoring – participatory, surveillance monitoring, volunteer surveying.</p>	<p>It is used to manage the data and organize the data.</p>	<p>Can't accept the larger amount of data.</p>	<p>Improve the machine to get large amount of dataset</p>
<p>The iNaturalist species classification and detection dataset /G. Van Horn, O. Mac Aodha, Y. Song, Y. Cui, C. Sun, A. Shepard, H. Adam, P. Perona, S. Belongie</p>	<p>Computer Vision and Pattern Recognition</p>	<p>It can handel the large amount of dataset of the animals and plant varieties.</p>	<p>The Accuracy level is not constant it may vary and predict wrong accuracy.</p>	<p>Make the stability in Accuracy.</p>