

2025-01-01 10:40:16,379 -
leafguard_capstone.data_processing.generators - INFO - Found 39
classes
2025-01-01 10:40:16,379 - VotingEnsemble - INFO - Initializing
BaseEnsemble
~/Home/leafguard_capstone/leafguard_capstone
~/Home/leafguard_capstone
~/Home/leafguard_capstone/leafguard_capstone/processed_data
~/Home/leafguard_capstone/leafguard_capstone/saved_models



Starting LeafGuard Plant Disease Prediction...



Analyzing image: ~/Home/leafguard_capstone/datasets/
Working_Images/crn.jpg



Augmentation: enabled



Processing...

Loading models: 0%| | 0/3 [00:00<?, ?it/s]2025-01-01
10:40:16,408 - h5py._conv - DEBUG - Creating converter from 3 to 5
2025-01-01 10:40:16,787 - absl - WARNING - Compiled the loaded
model, but the compiled metrics have yet to be built.
'model.compile_metrics' will be empty until you train or evaluate
the model.
2025-01-01 10:40:16,790 - VotingEnsemble - INFO - Loaded model:
mobilenetV2

Loading models: 33%| | 1/3 [00:00<00:00, 2.57it/
s]2025-01-01 10:40:17,520 - absl - WARNING - Compiled the loaded
model, but the compiled metrics have yet to be built.
'model.compile_metrics' will be empty until you train or evaluate
the model.
2025-01-01 10:40:17,523 - VotingEnsemble - INFO - Loaded model:
densenet

Loading models: 67%| | 2/3 [00:01<00:00, 1.69it/
s]2025-01-01 10:40:17,902 - absl - WARNING - Compiled the loaded
model, but the compiled metrics have yet to be built.
'model.compile_metrics' will be empty until you train or evaluate
the model.
2025-01-01 10:40:17,904 - VotingEnsemble - INFO - Loaded model:
xception

Loading models: 100%| | 3/3 [00:01<00:00, 2.02it/s]
Loading models: 100%| | 3/3 [00:01<00:00, 1.99it/s]
2025-01-01 10:40:17,905 - VotingEnsemble - INFO - Voting Ensemble
initialized successfully
2025-01-01 10:40:17,905 - AveragingEnsemble - INFO - Initializing
BaseEnsemble

Loading models: 0%| | 0/3 [00:00<?, ?it/s]2025-01-01
10:40:17,905 - AveragingEnsemble - INFO - Loaded model from cache:
mobilenetV2
2025-01-01 10:40:17,905 - AveragingEnsemble - INFO - Loaded model

from cache: densenet
2025-01-01 10:40:17,905 - AveragingEnsemble - INFO - Loaded model
from cache: xception

Loading models: 100%|██████████| 3/3 [00:00<00:00, 27118.34it/s]
2025-01-01 10:40:17,905 - AveragingEnsemble - INFO - Averaging
Ensemble initialized successfully
2025-01-01 10:40:17,905 -
leafguard_capstone.prediction_service.predictions - INFO -
Components initialized successfully

Results:

Prediction Results:

Image: ~/Home/leafguard_capstone/datasets/Working_Images/crn.jpg
Voting Ensemble Prediction: Corn___healthy
Averaging Ensemble Prediction: Corn___healthy

✅ Analysis complete! (Time: 3.76s)

2025-01-01 11:00:36,093 -
leafguard_capstone.data_processing.generators - INFO - Found 39
classes
2025-01-01 11:00:36,093 - VotingEnsemble - INFO - Initializing
BaseEnsemble
~/Home/leafguard_capstone/leafguard_capstone
~/Home/leafguard_capstone
~/Home/leafguard_capstone/leafguard_capstone/processed_data
~/Home/leafguard_capstone/leafguard_capstone/saved_models

🌿 Starting LeafGuard Plant Disease Prediction...

🔍 Analyzing image: ~/Home/leafguard_capstone/datasets/
Working_Images/glb.jpeg

🔄 Augmentation: enabled

⚙️ Processing...

Loading models: 0%|██████████| 0/3 [00:00<?, ?it/s]2025-01-01
11:00:36,122 - h5py._conv - DEBUG - Creating converter from 3 to 5
2025-01-01 11:00:36,517 - absl - WARNING - Compiled the loaded
model, but the compiled metrics have yet to be built.
`model.compile_metrics` will be empty until you train or evaluate
the model.
2025-01-01 11:00:36,520 - VotingEnsemble - INFO - Loaded model:
mobilenetV2

Loading models: 33%|██████████| 1/3 [00:00<00:00, 2.47it/
s]2025-01-01 11:00:37,254 - absl - WARNING - Compiled the loaded

model, but the compiled metrics have yet to be built.
`model.compile_metrics` will be empty until you train or evaluate the model.
2025-01-01 11:00:37,257 - VotingEnsemble - INFO - Loaded model: densenet

Loading models: 67%|██████████| 2/3 [00:01<00:00, 1.67it/s]2025-01-01 11:00:37,639 - absl - WARNING - Compiled the loaded model, but the compiled metrics have yet to be built.
`model.compile_metrics` will be empty until you train or evaluate the model.
2025-01-01 11:00:37,641 - VotingEnsemble - INFO - Loaded model: xception

Loading models: 100%|██████████| 3/3 [00:01<00:00, 1.99it/s]
Loading models: 100%|██████████| 3/3 [00:01<00:00, 1.97it/s]
2025-01-01 11:00:37,641 - VotingEnsemble - INFO - Voting Ensemble initialized successfully
2025-01-01 11:00:37,641 - AveragingEnsemble - INFO - Initializing BaseEnsemble

Loading models: 0%| | 0/3 [00:00<?, ?it/s]2025-01-01 11:00:37,642 - AveragingEnsemble - INFO - Loaded model from cache: mobilenetV2
2025-01-01 11:00:37,642 - AveragingEnsemble - INFO - Loaded model from cache: densenet
2025-01-01 11:00:37,642 - AveragingEnsemble - INFO - Loaded model from cache: xception

Loading models: 100%|██████████| 3/3 [00:00<00:00, 28276.21it/s]
2025-01-01 11:00:37,642 - AveragingEnsemble - INFO - Averaging Ensemble initialized successfully
2025-01-01 11:00:37,642 -
leafguard_capstone.prediction_service.predictions - INFO - Components initialized successfully

Results:

Prediction Results:

Image: ~/Home/leafguard_capstone/datasets/Working_Images/glb.jpeg
Voting Ensemble Prediction:
Grape__Leaf_blight_(Isariopsis_Leaf_Spot)
Averaging Ensemble Prediction:
Grape__Leaf_blight_(Isariopsis_Leaf_Spot)

Treatment Information:

PLANT DISEASE ANALYSIS REPORT

Disease Name: Grape Leaf Blight (Isariopsis Leaf Spot)

DESCRIPTION:

Grape leaf blight, caused by the fungus *Isariopsis clavispora*, is a common disease affecting grapes, particularly in warm, humid climates. It primarily affects the leaves, causing characteristic spots and lesions that can lead to premature defoliation and reduced fruit production.

****DIAGNOSIS:****

****Main Symptoms:****

- * Circular to irregular brown or tan spots on leaves
- * Spots initially small but enlarge and merge to form larger lesions
- * Lesions may become sunken or raised
- * Leaves may become yellowed or brown around lesions
- * Defoliation in severe cases

****Identifying Characteristics:****

- * Abundant sporulation on lesions in humid conditions
- * Conidia are cylindrical with two or three septa
- * Lesions may coalesce, forming irregular brown patches on leaves

****Potential Damage Indicators:****

- * Reduced photosynthetic capacity due to leaf damage
- * Reduced fruit quality and yield due to premature defoliation
- * Increased susceptibility to other diseases and pests

****TREATMENT PLAN:****

****1. Cultural Controls:****

- * ****Pruning and thinning:**** Remove infected leaves and canes to improve air circulation and reduce humidity.
- * ****Crop rotation:**** Plant grapes in different locations each year to avoid build-up of the fungus.
- * ****Avoid overwatering:**** Excess moisture promotes disease development.
- * ****Soil drainage:**** Improve soil drainage to prevent waterlogging.

****2. Chemical Controls:****

- * ****Fungicides:**** Apply appropriate fungicides, such as strobilurins or triazoles, at recommended intervals.
- * ****Timing:**** Applications should be made before infection occurs (preventive) or as soon as symptoms appear (curative).
- * ****Method:**** Follow manufacturer's instructions for application rates and methods.

****3. Prevention:****

- * ****Clean planting material:**** Use disease-free plants or cuttings.
- * ****Monitor regularly:**** Inspect vineyards frequently for early signs of infection.

* **Use resistant varieties:** Plant grape varieties that have resistance to leaf blight.
* **Long-term management:** Implement an integrated pest management (IPM) system to reduce disease pressure over time.

✅ Analysis complete! (Time: 11.86s)

WARNING: All log messages before absl::InitializeLog() is called are written to STDERR

E0000 00:00:1735709450.808758 79203 init.cc:229]
grpc_wait_for_shutdown_with_timeout() timed out.