



Cassava Disease Identification



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Cassava

- Third largest source of carbohydrates in the world
- Tuber like potatoes and yams
- Largest producer Nigeria, Exporter Thailand



Cassava Diseases

Viruses are the primary reason for the complete lack of yield increases in the 25 years up to 2019.

- Cassava Brown Streak Disease
- Cassava Mosaic Disease
- Cassava Green Mottle
- Cassava Bacterial Blight





Data

~5000 photos of cassava plant leaves

National Crops Resources Research Institute (Uganda)

Using Data Augmentation added ~3500 additional images.



Model

Convolutional Neural Network

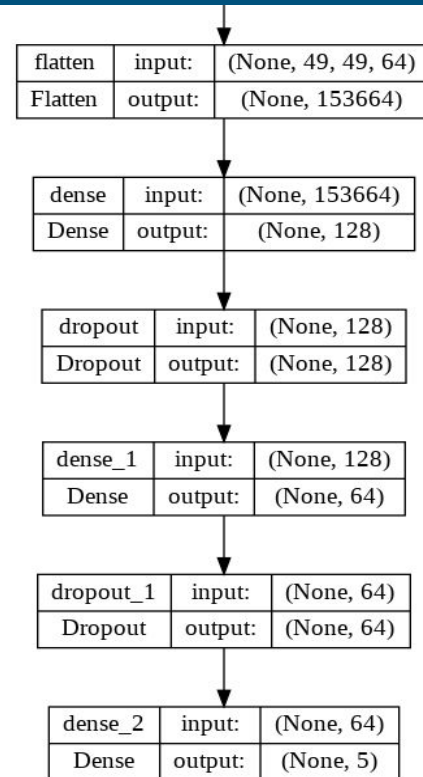
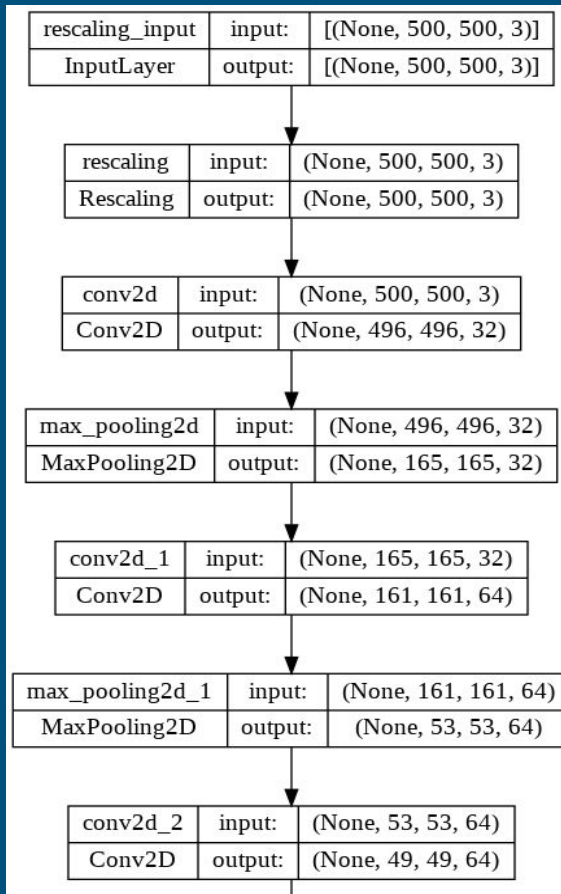
Accuracy Metric AUC

loss: 1.0397

auc: 0.8773

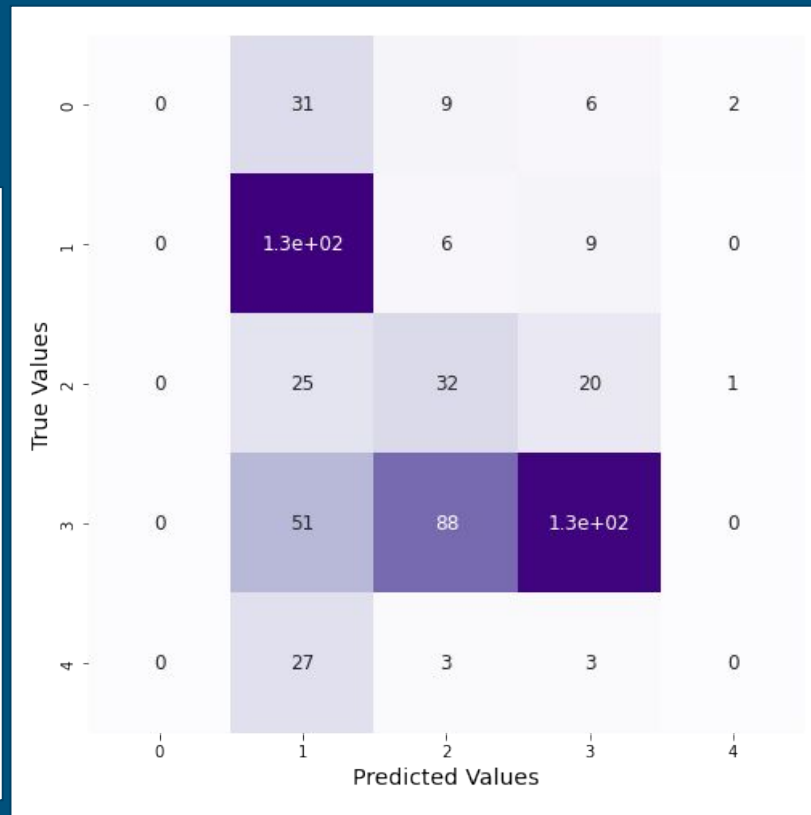
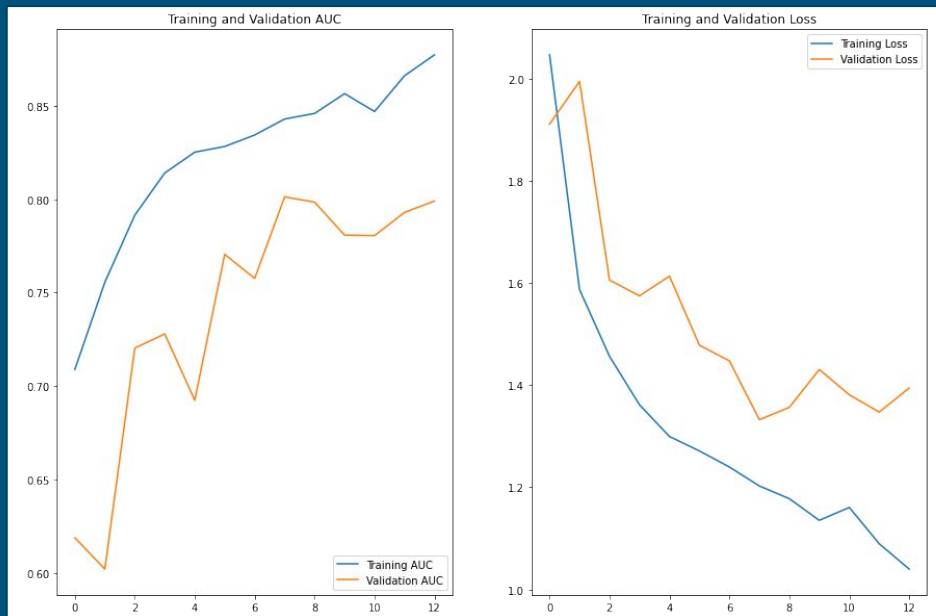
val_loss: 1.3945

val_auc: 0.7991



Model

Initial issues of overfitting



Going forward

Rebalance the data

Review additional CNN layers

Thank you

