Apple Identifications

Phase IV Final Project
Presenter: Skye Jeanat

Agenda

- About the Stakeholder
- Data Set Details
- Top Performing Model
- Summary and Recommendation
- Questions?

About the Stakeholder

- Nationally based fruit supplier and producer
  - under license by C.H. Robinson, a global supplier of fresh fruit and vegetables
- Streamline categorization processes
- Need overall high accuracy and low loss

Data Set Details

Apple Types:

- Braeburn
- Crimson Snow
- Golden Delicious
- Granny Smith
- Pink Lady
- Red Delicious

Train, Test, Validation Breakdown:

- Train = 65%
- Test = 25%
- Validation = 10%

Source:

- Kaggle - Fruits 360

Images:

- 3,802 total pre-data augmentation
- 12,065 total post-data augmentation

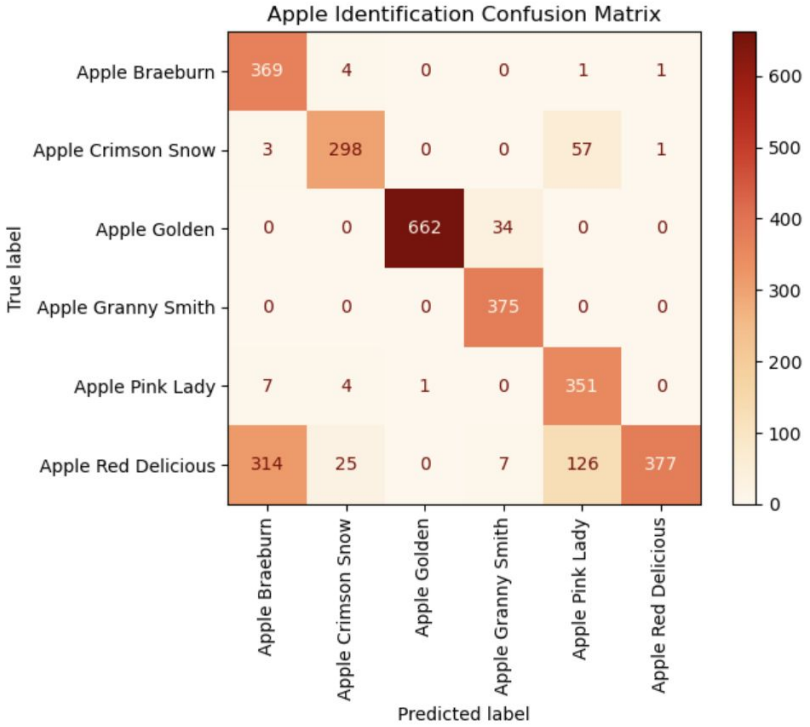
Top Performing Model

Model Characteristics:

- Neural Network model
- Data augmentation and data set size

Results:

- Train Accuracy = ~96%
- Test Accuracy = ~80%
- Red vs. green apples



Summary and Recommendation

Recommendation:

- Utilize a neural-network model during production

Benefits:

- Streamline categorization processes
- Cost and time savings

Next Steps:

- Utilize additional images to fine-tune model
- Layer in additional apple varieties
- Consider other apple characteristics

Questions?

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