Tree Trunk Detection and Species Identification

Yunmei Huang, PhD candidate
Advisor: Dr. Songlin Fei
Forestry and Natural Resources Department

How foresters identify tree species ?
Demo on videos

The first 5 original clips were collected by Lenny Farlee, from Purdue Extension- Forestry and Natural Resources (YouTube)

Workflow

Image collection
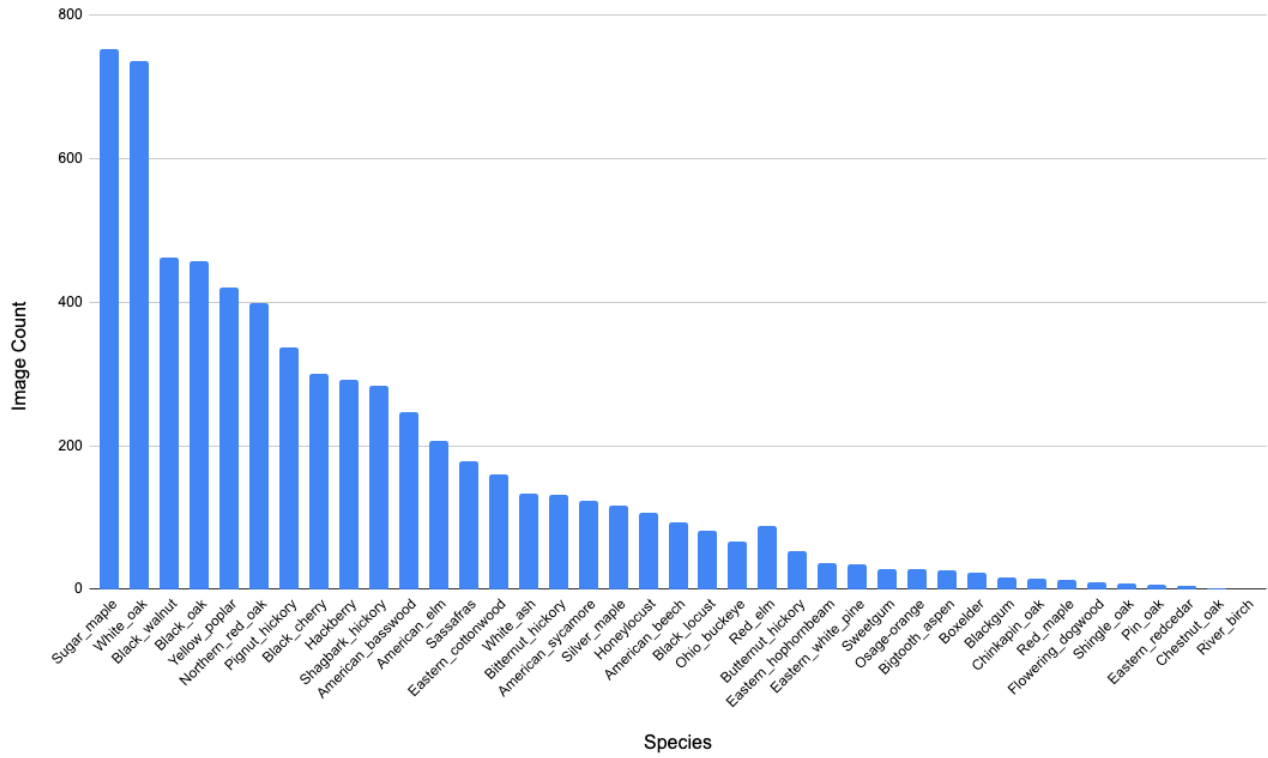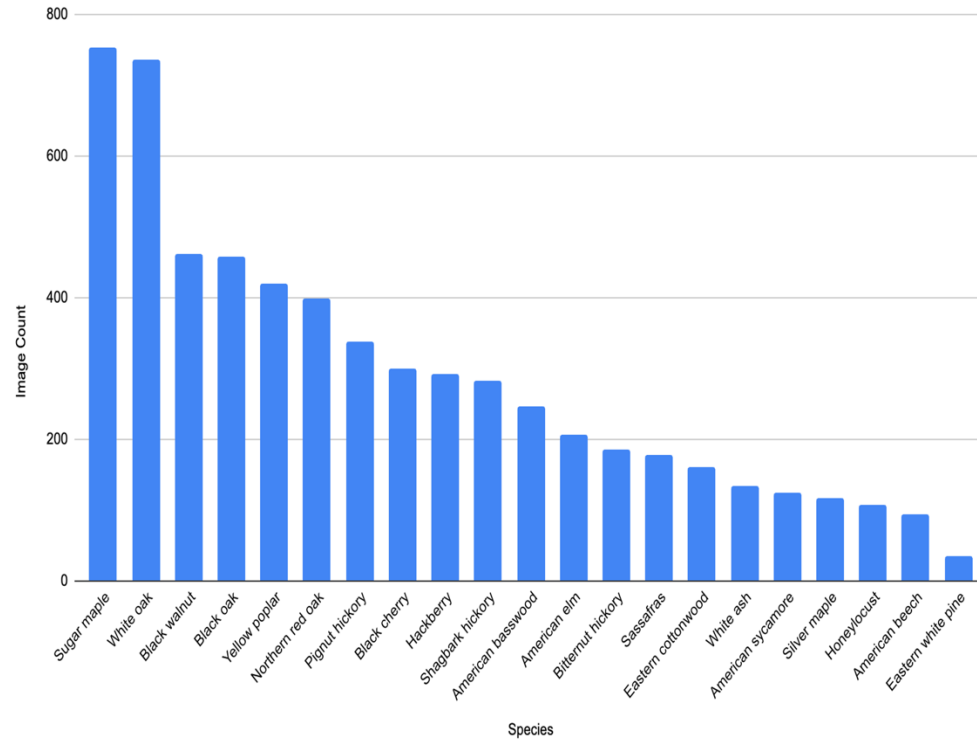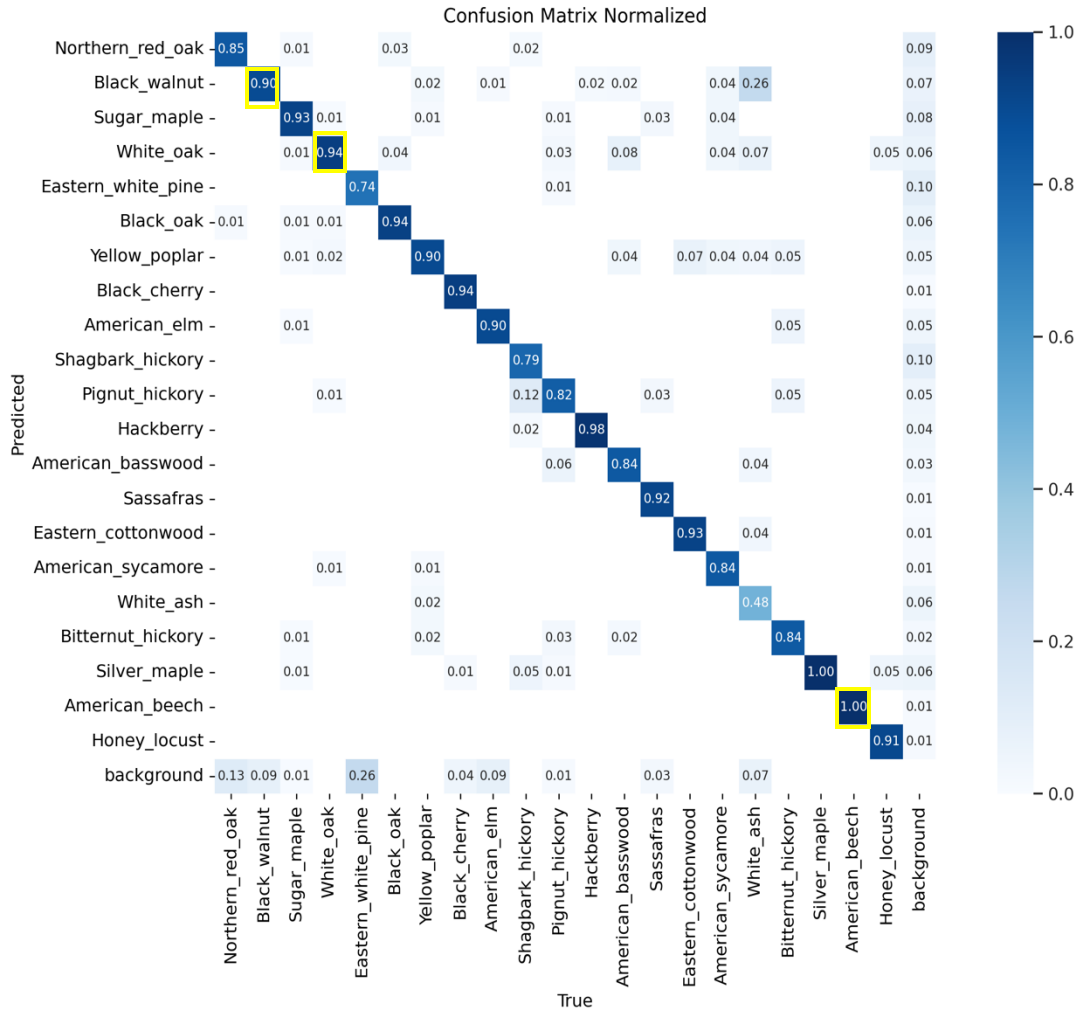

Train tree species detection model

Segmentation
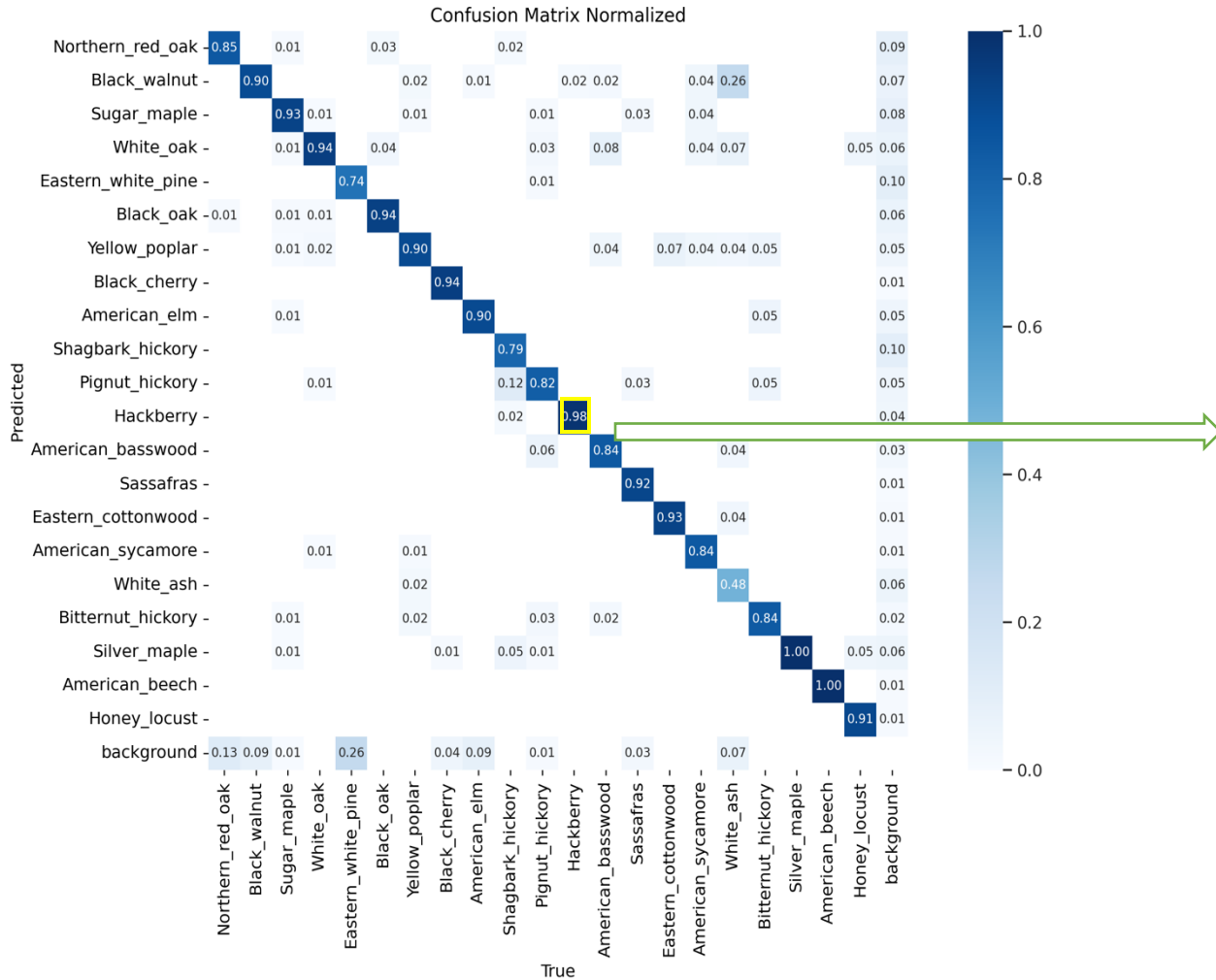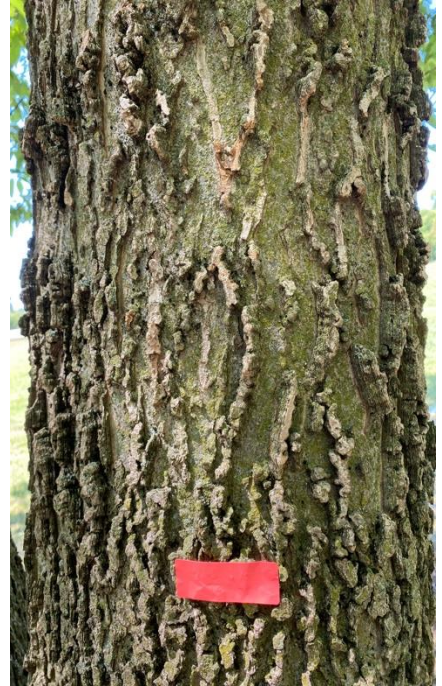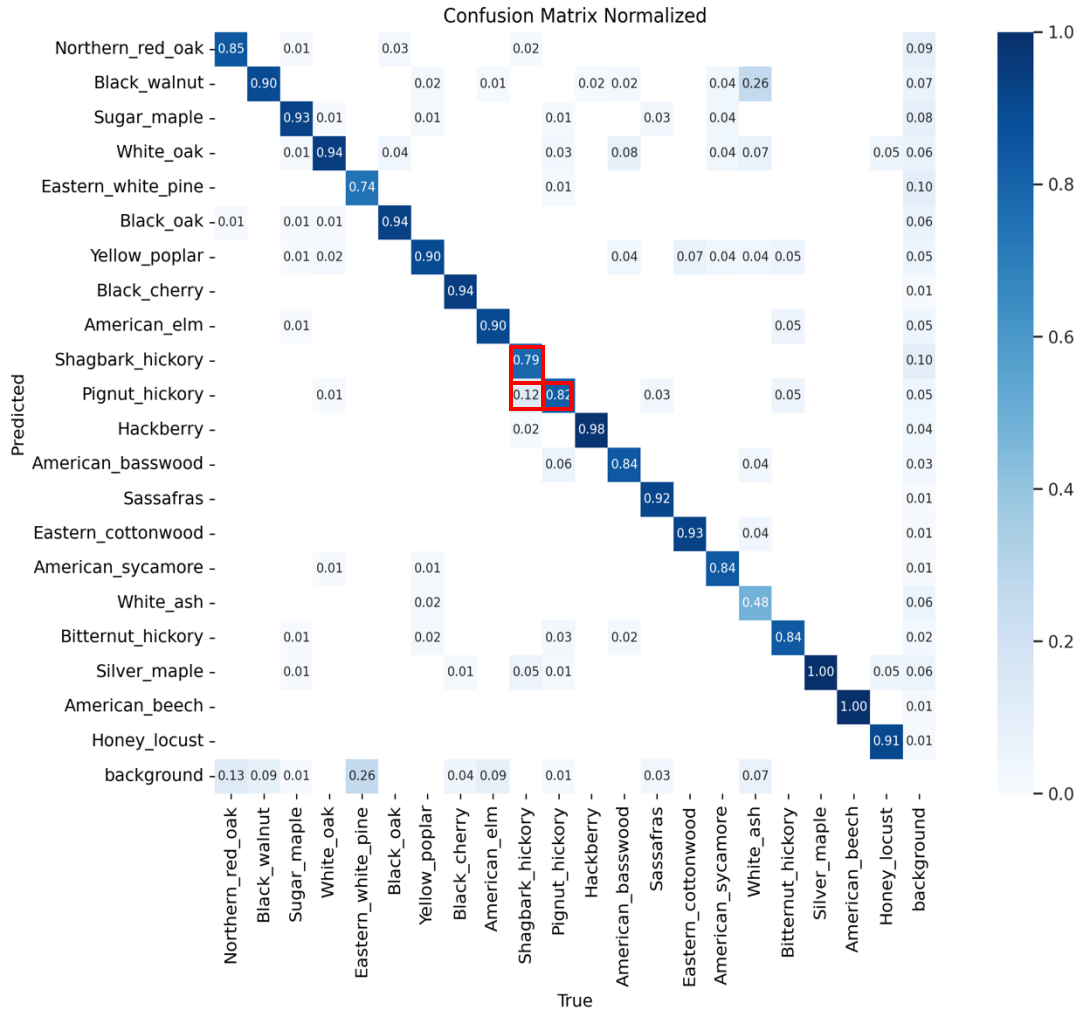

Processed images for classification

Long tail dataset

Keep species with images >80

Confusion Matrix Normalized

Train on 21 classes, with an accuracy of 0.9.

INSTITUTE FOR
DIGITAL FORESTRY

Confusion Matrix Normalized

Confusion Matrix Normalized

Shagbark hickory

Bitternut hickory

Are they from the same genus/species?

Thanks for your attention.

Contact: huan1643@purdue.edu

https://www.linkedin.com/in/yunmei-huang/