Metastatic Tumor Detection

Image Classification

Project Overview

- Challenge
- Data
- Modeling
- Results
- Next Steps

Challenge

Cancer Classification

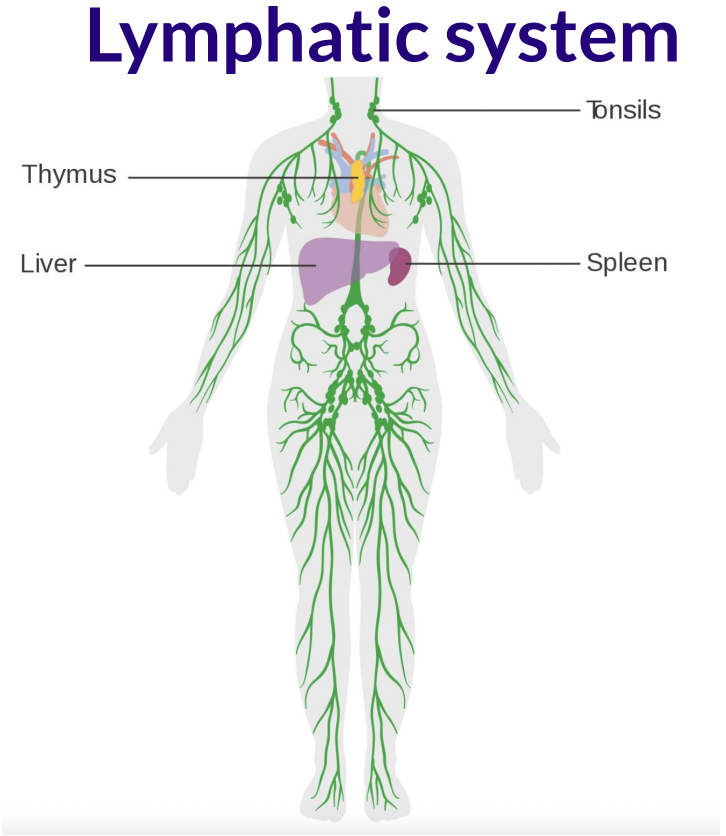
- What is metastatic cancer?

Challenge

Cancer Classification

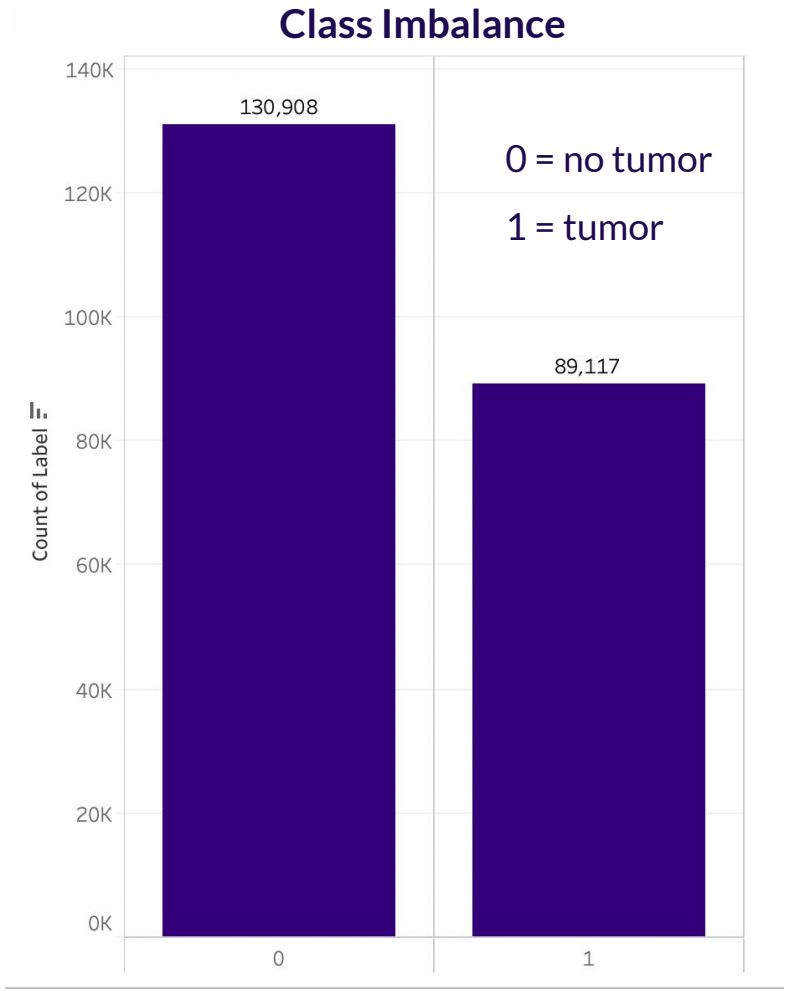
- What is metastatic cancer?

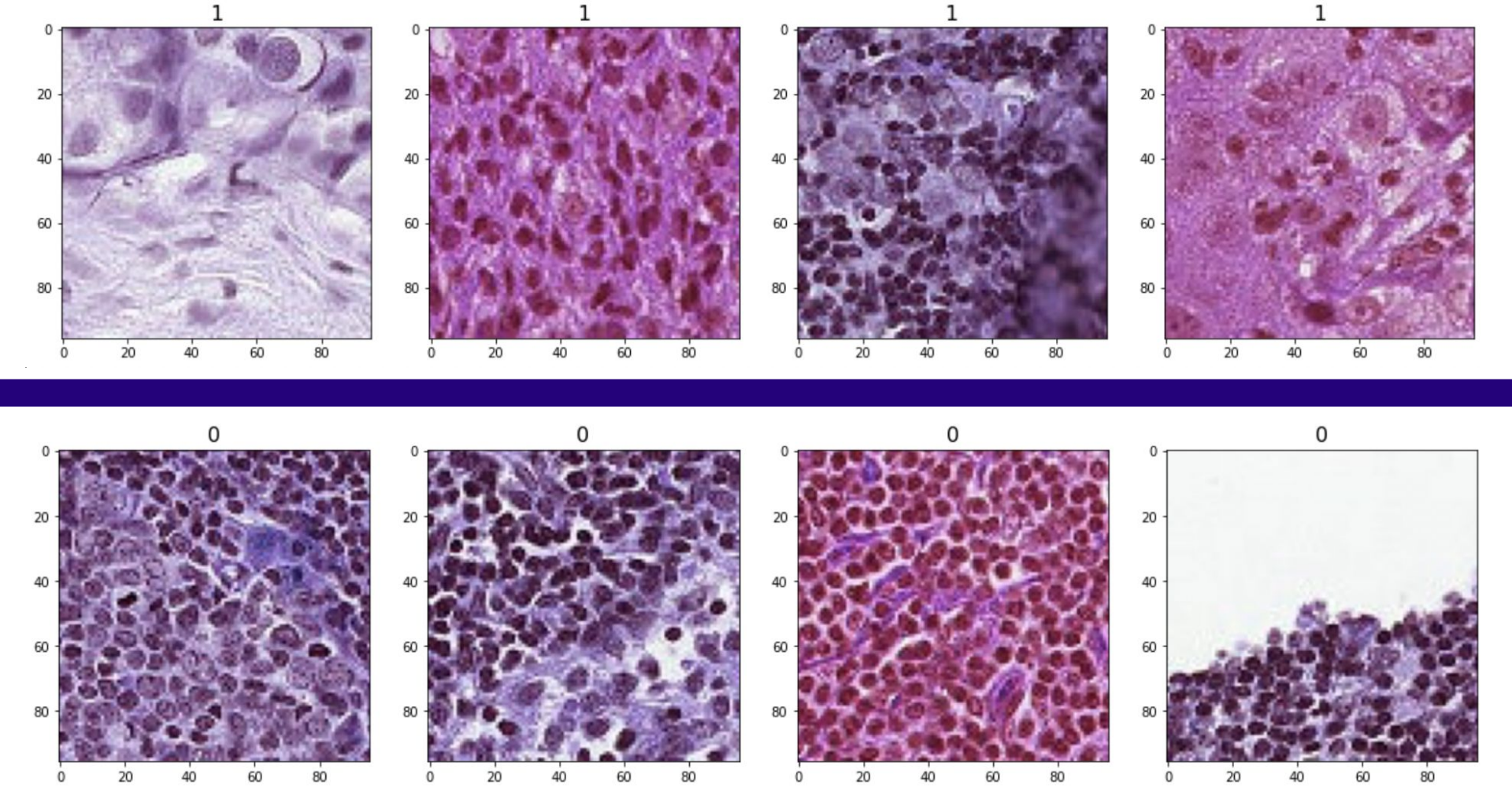
- How can images help?



Data

- PatchCamelyon
- 220,000 Total
- ~ 150,000 Train




1
1
1
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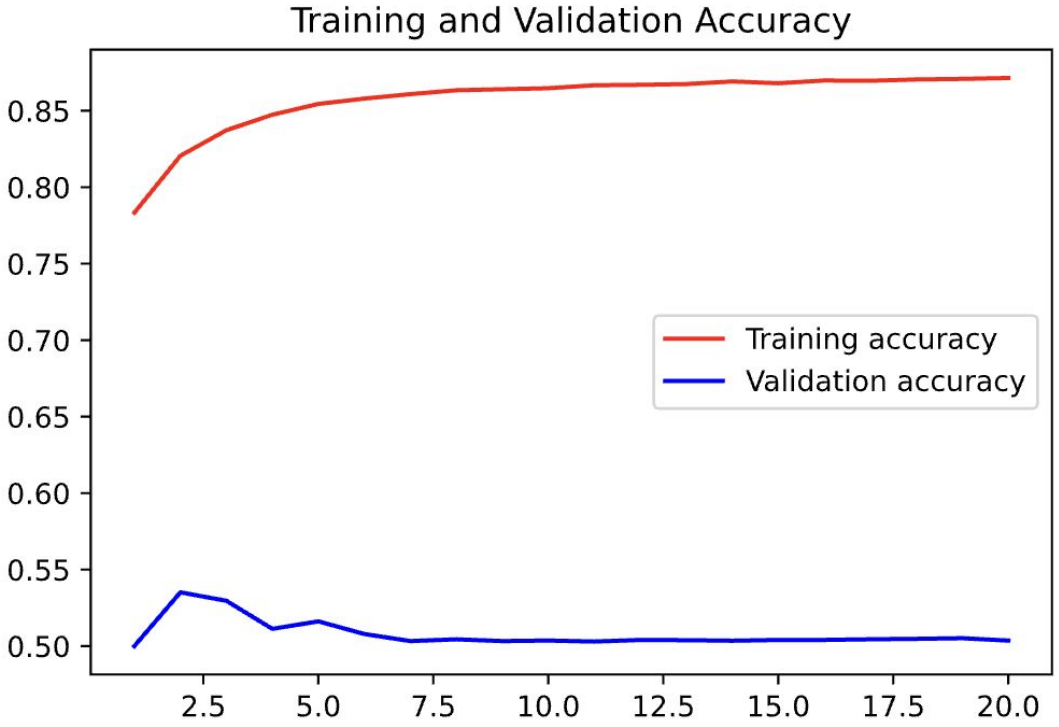
0

Modeling

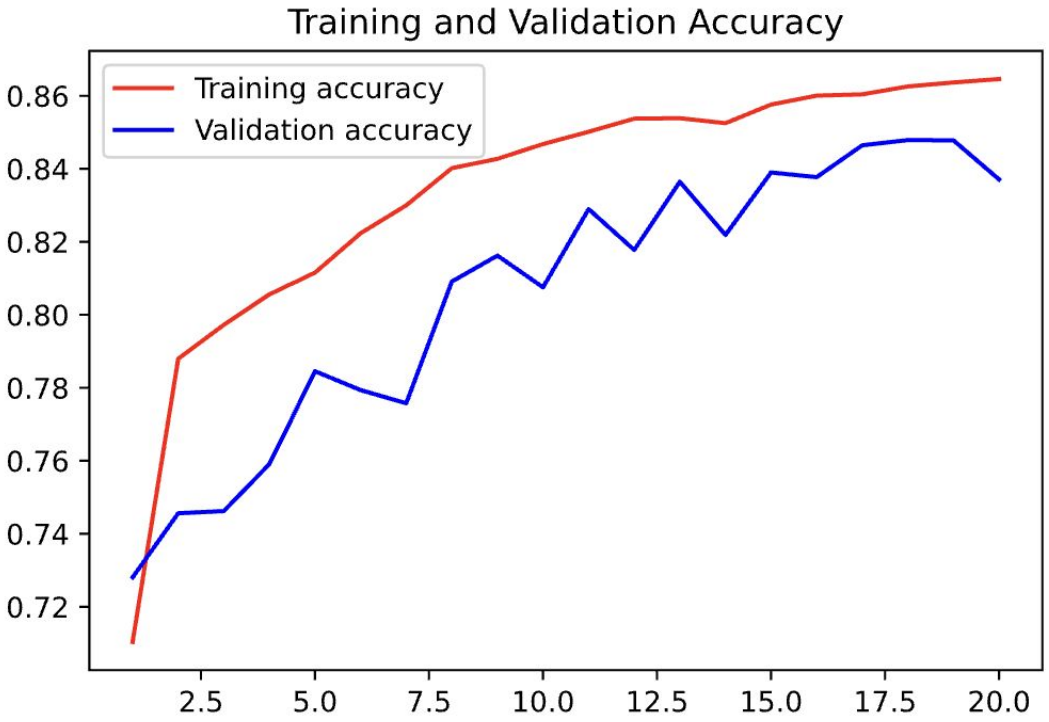
- Convolutional Neural Networks (CNN)s
- Baseline & Final Iteration
- Transfer Learning - ResNet50

Modeling - Baseline



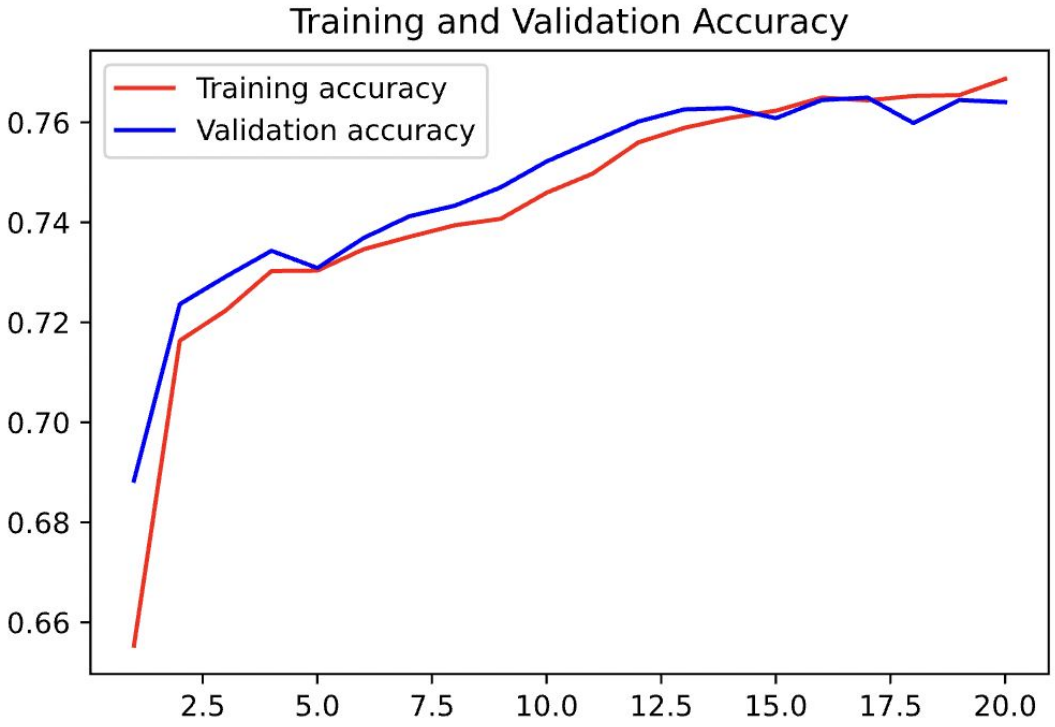
- 3 Layer CNN
- Binary

Modeling - Final Iteration



- 3 Layer CNN
- Categorical

Modeling - Transfer Learning



- ResNet50
- Categorical

Results

	Accuracy	Val Accuracy	Val Loss
Baseline	.87	.54	3.27
Final	.87	.84	.38
Transfer	.76	.76	.50

Next Steps

Adjust CNN layers

Test different transfer learning imports

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Thank You