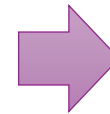
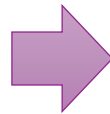


Computational Cut-Ups: A deformative “reading” of Dada

Laure Thompson & David Mimno
Cornell University



Dada?



To make a Dadaist poem:

Take a newspaper.

Take a pair of scissors.

Choose an article from the newspaper about the same length as you want your poem.

Cut out the article.

Then carefully cut out each word of the article and put them in a bag.

Shake gently.

Then take out each word, one after another.

Copy them conscientiously in the order drawn.

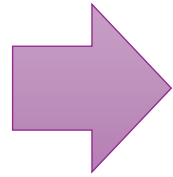
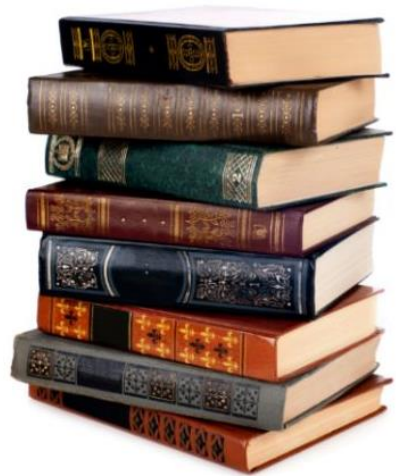
The poem will be like you.

And look! You are an infinitely original writer with a charming sensibility, yet beyond the understanding of the vulgar.

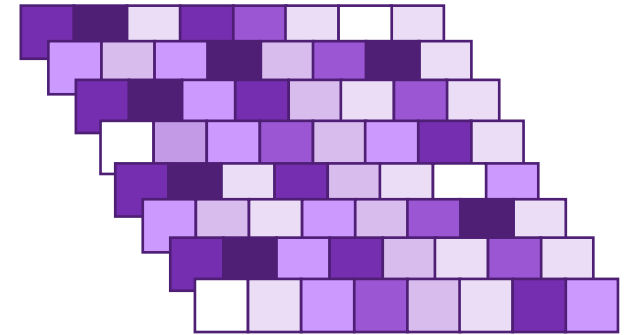
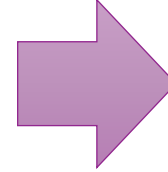


Tristan Tzara

Sounds familiar...



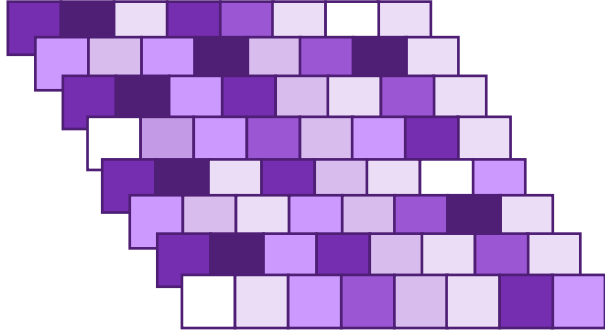
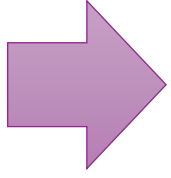
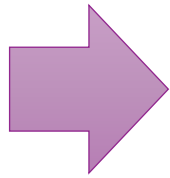
Bag of Words
Models



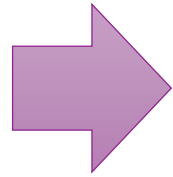
~~Feature Vectors~~

Computational Cut-ups

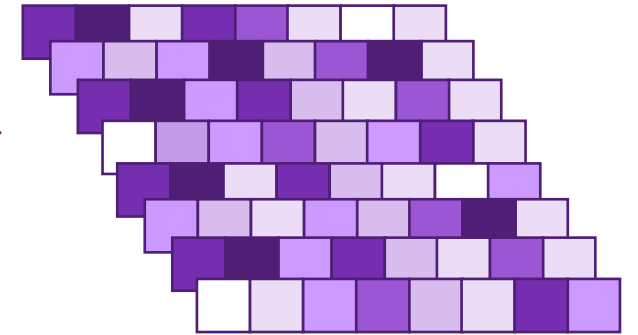
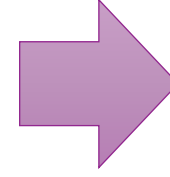
What about images?



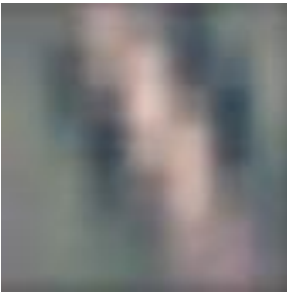
Computational cut-ups via CNNs



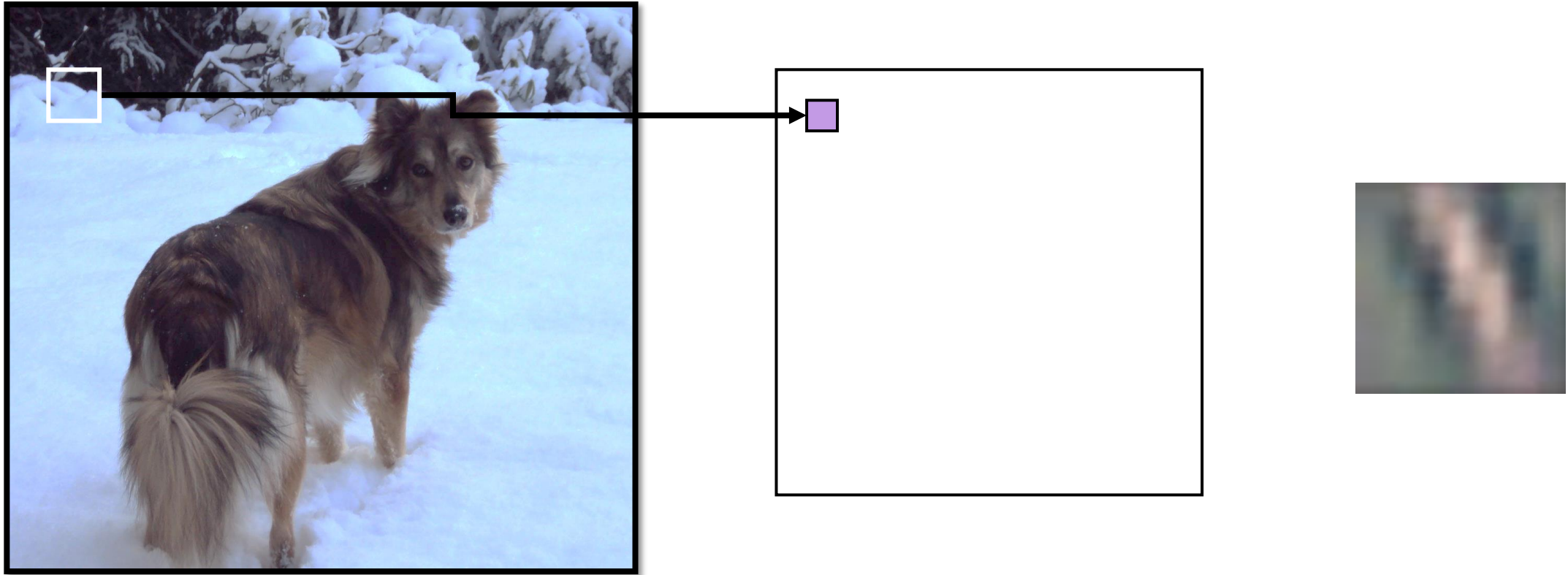
**Convolutional
Neural Networks**



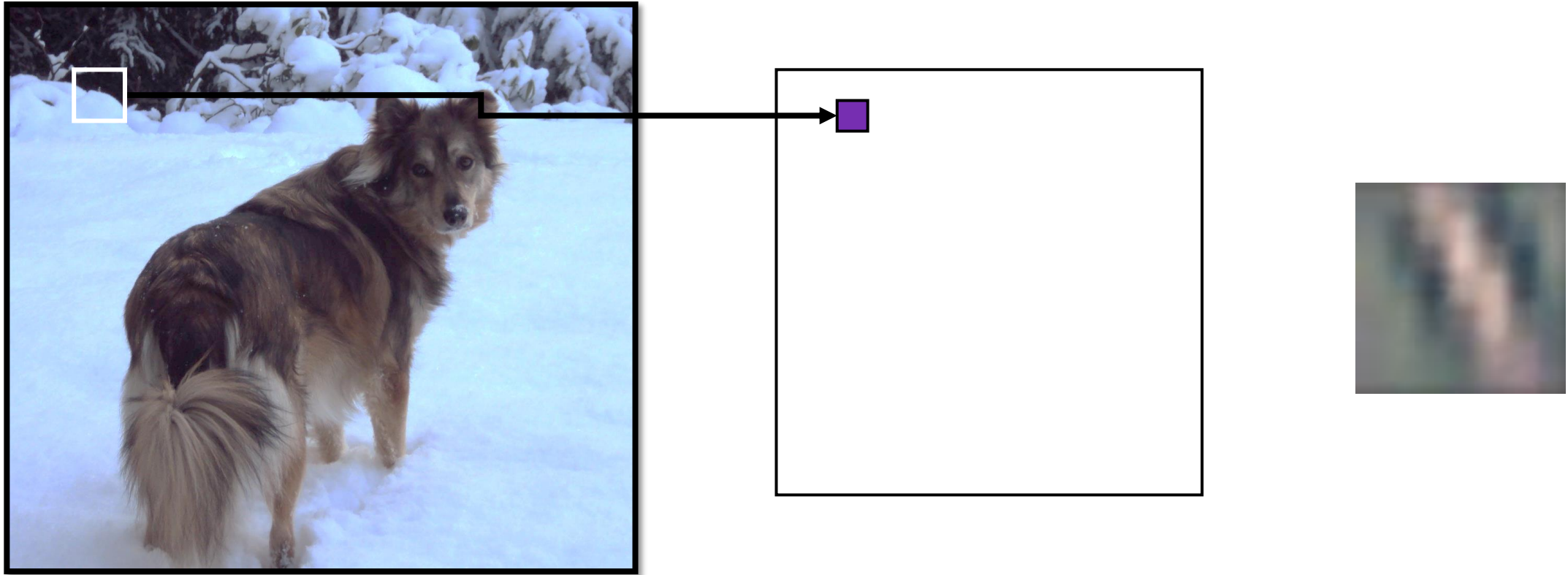
Convolutional Neural Networks (CNNs)



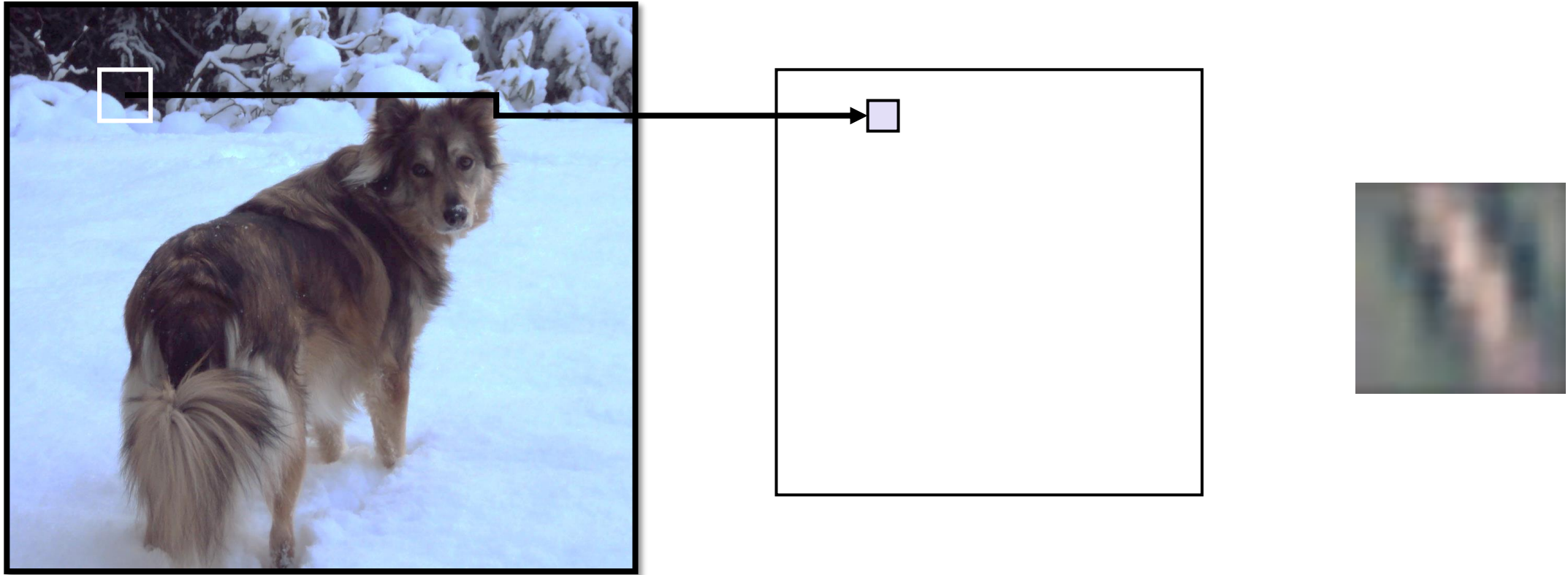
Convolutional Neural Networks (CNNs)



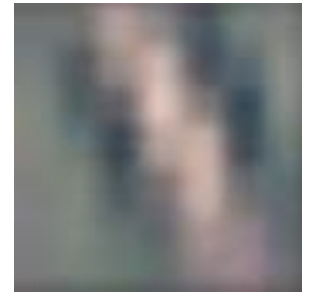
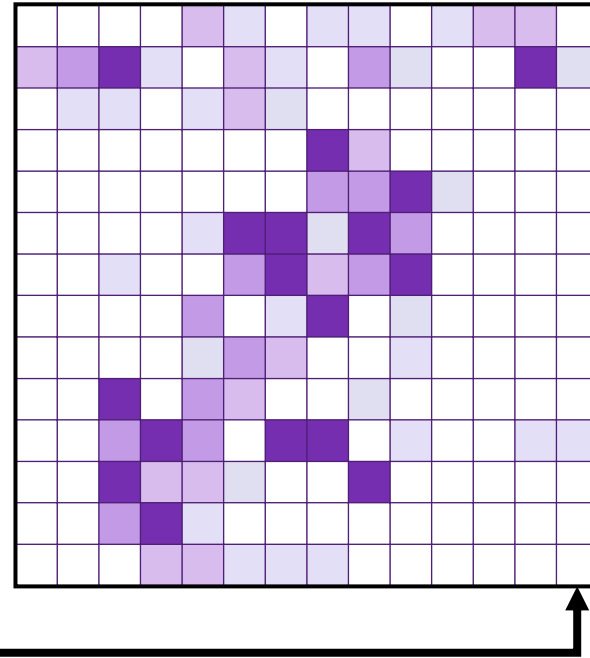
Convolutional Neural Networks (CNNs)



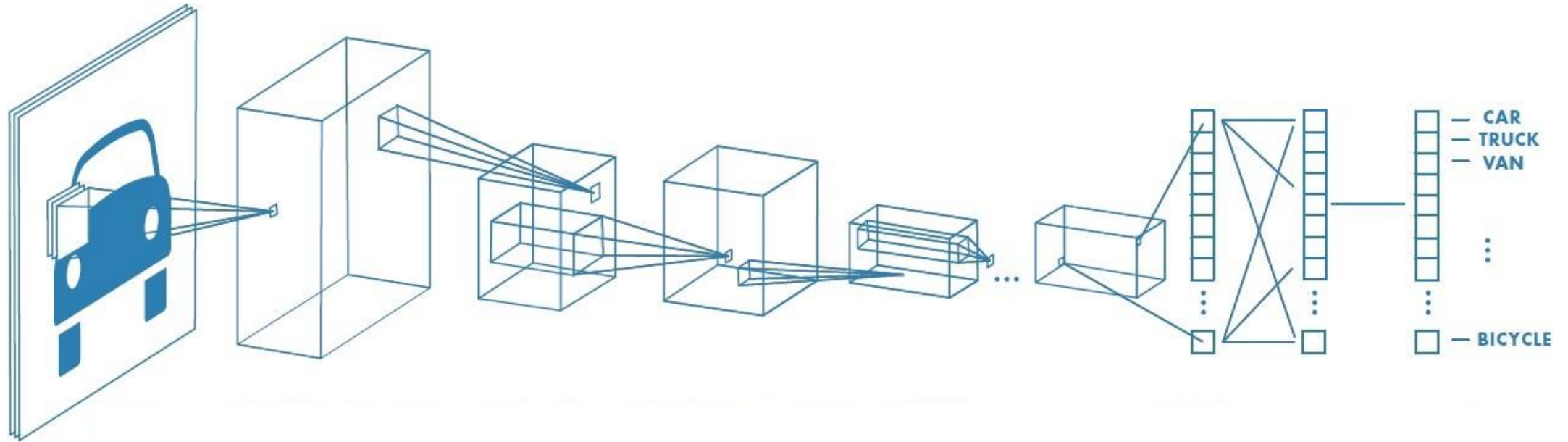
Convolutional Neural Networks (CNNs)



Convolutional Neural Networks (CNNs)

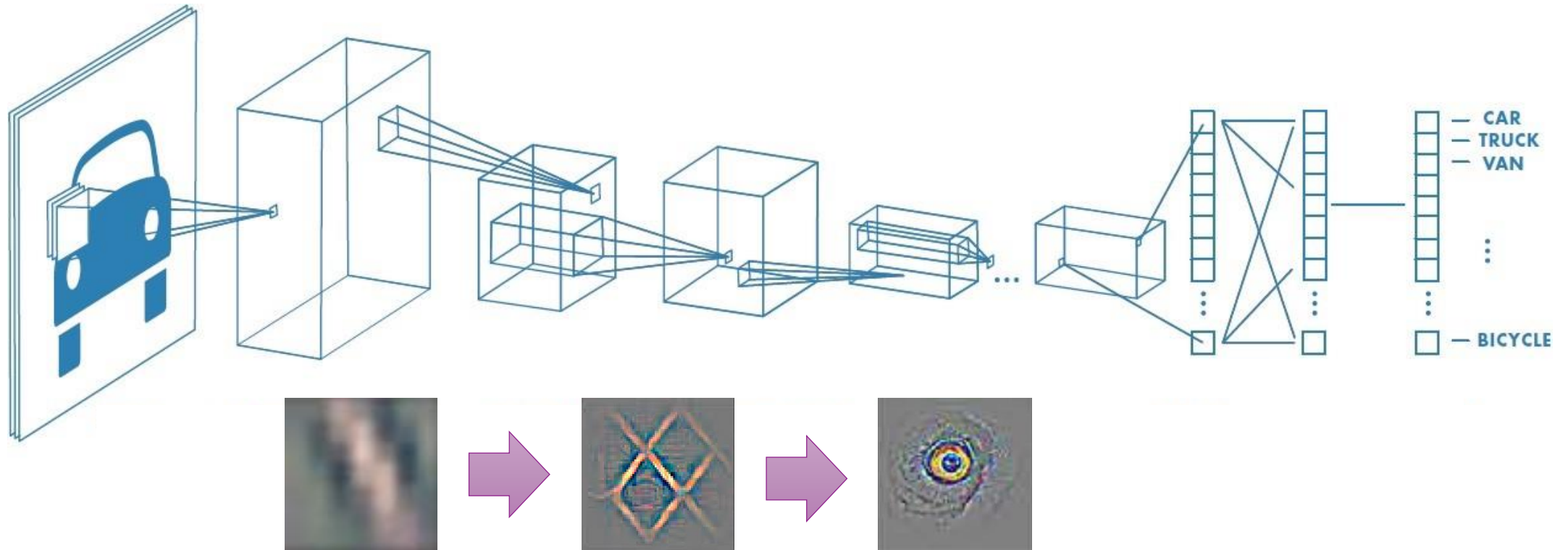


Convolutional Neural Networks (CNNs)



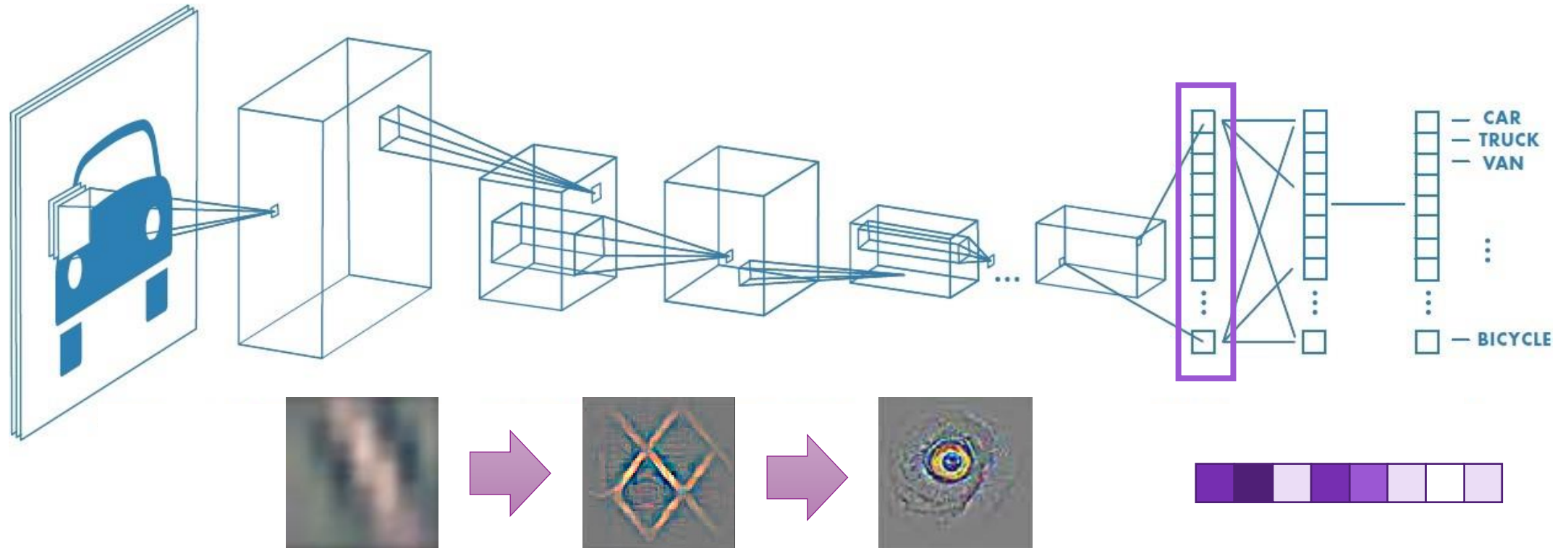
<https://www.mathworks.com/solutions/deep-learning/convolutional-neural-network.html>

Convolutional Neural Networks (CNNs)



<https://www.mathworks.com/solutions/deep-learning/convolutional-neural-network.html>

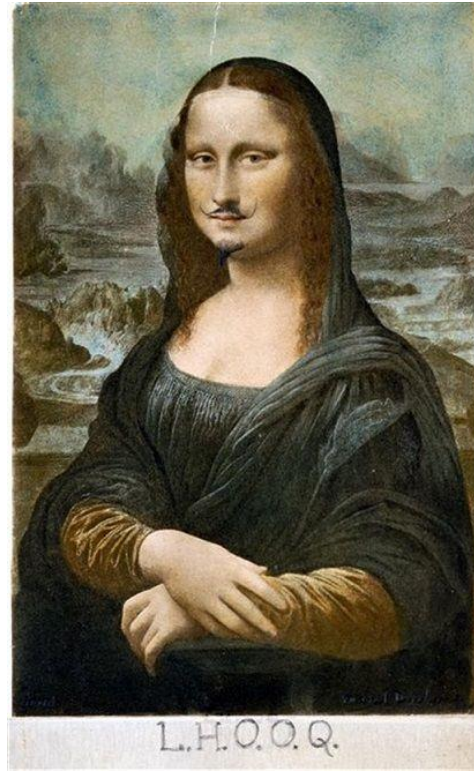
Convolutional Neural Networks (CNNs)



<https://www.mathworks.com/solutions/deep-learning/convolutional-neural-network.html>

Can CNNs see Dada?

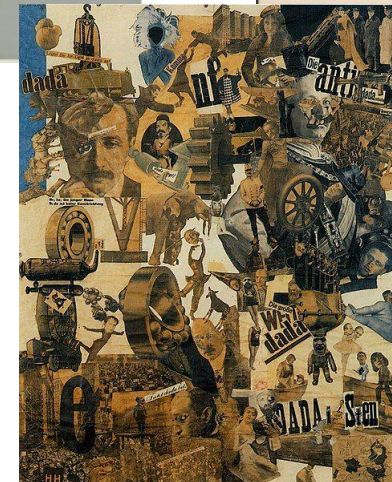
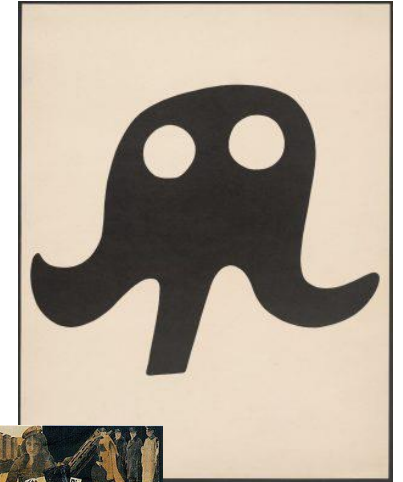
1. Is Dada visually definable?



2. Is Dada visible to CNNs?



VS.



Corpora: Blue Mountain Project



36 Journals

2,500+ issues

60,000+ pages

<http://bluemountain.princeton.edu/>

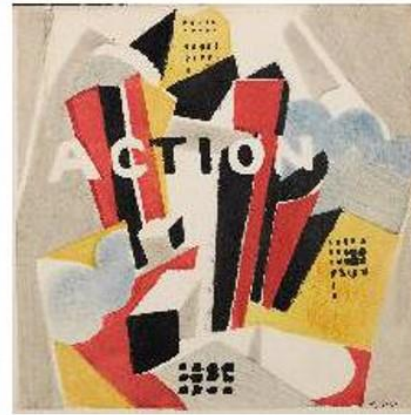
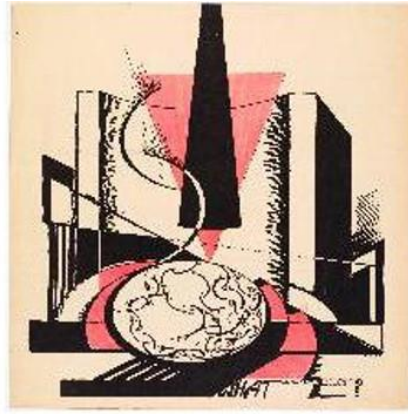
Deep Learning Library: Keras



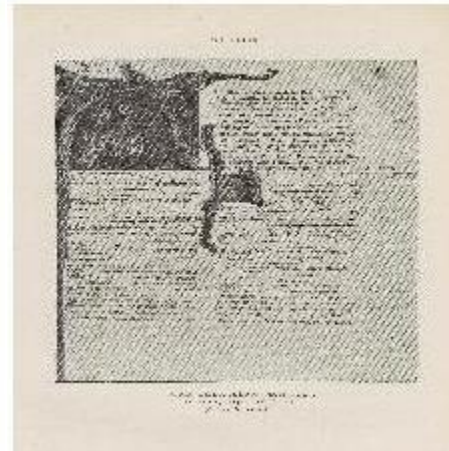
ResNet50
Penultimate Layer
2048-length vectors

github.com/melvinwevers/CV_tutorial

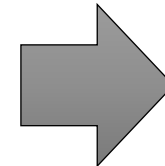
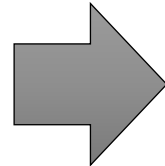
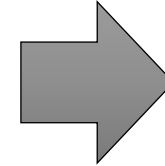
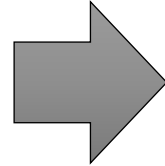
What is Dada?



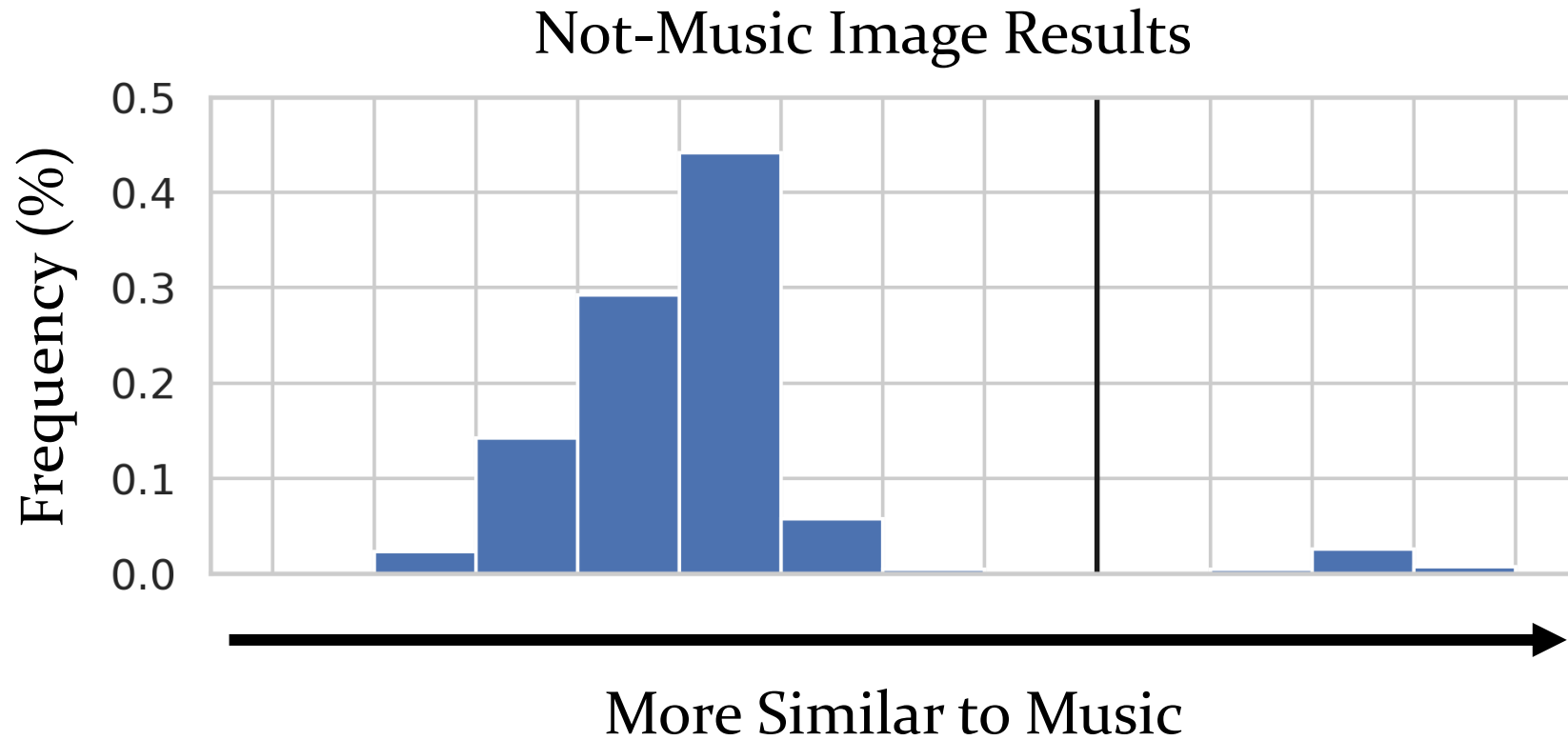
Proof-of-Concept: Can CNNs see music?



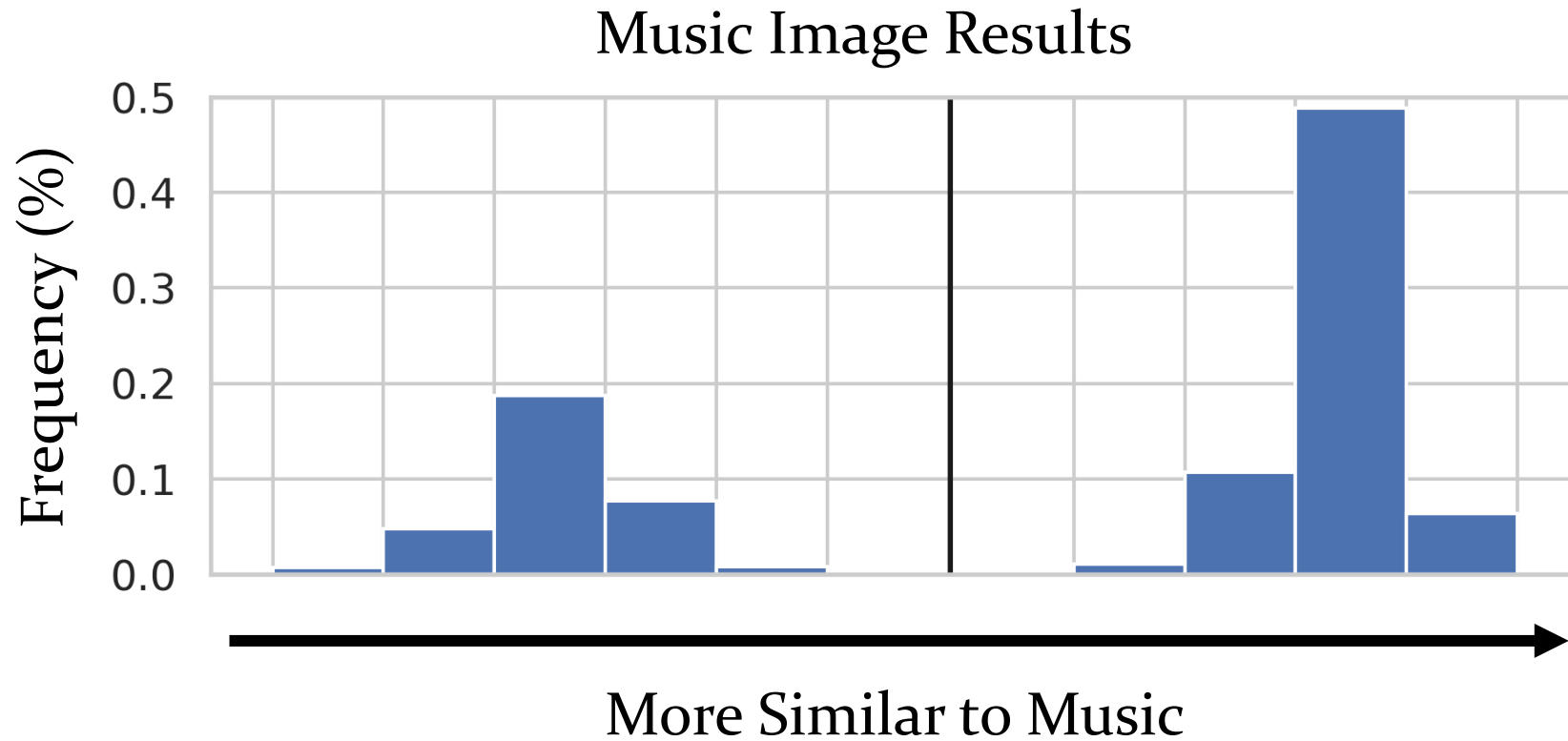
Proof-of-Concept: Can CNNs see music?



Good at recognizing what isn't music



...but recognizing music is harder



Learning from Mistakes



FN

TP

TN

FP



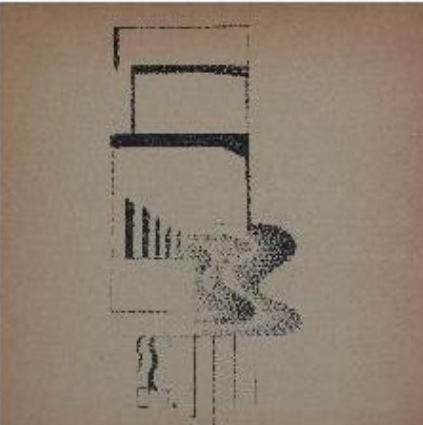
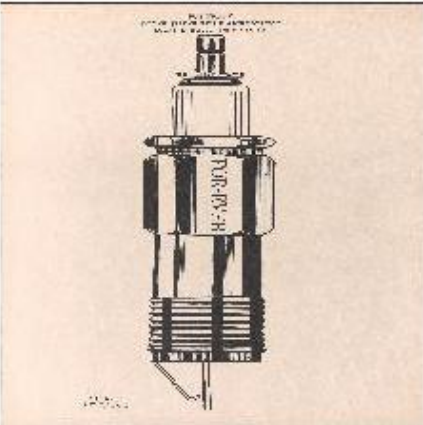
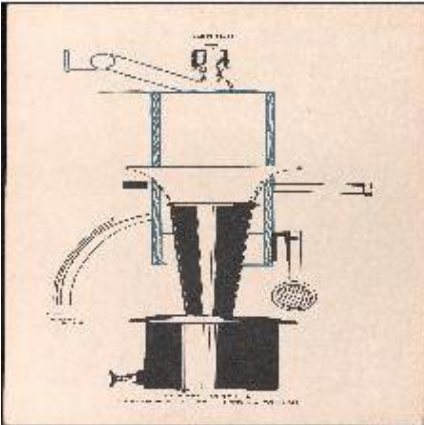
LES LAUREATS		
FRANCE	1^{er} PRIX	2^e PRIX
...

ENGLAND	
...	...

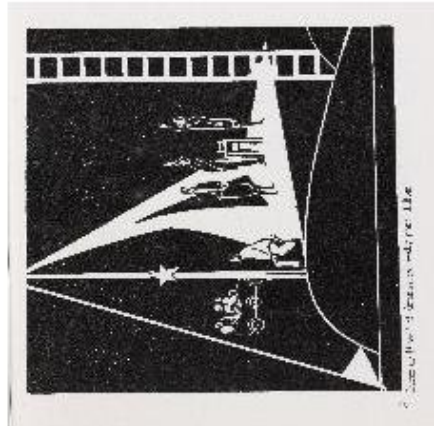
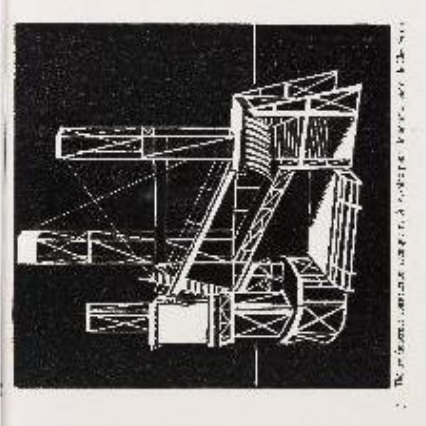
ITALY	
...	...

FRANCE	
...	...

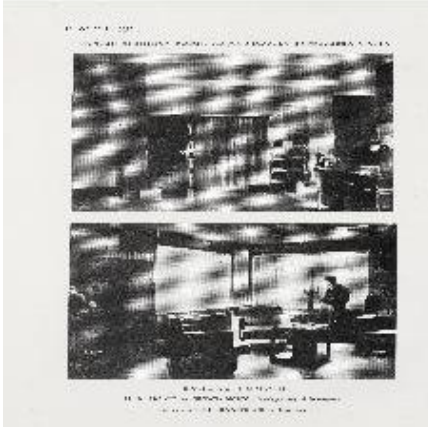
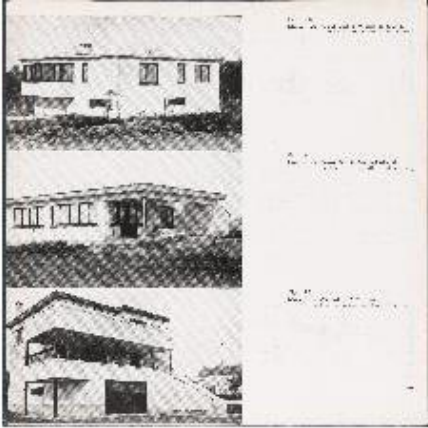
What does Dada look like?



What does Dada look like?



What *doesn't* Dada look like?



What *doesn't* Dada look like?



Want to learn more?

JMPS article: “Computational Cut-Ups: The Influence of Dada”

<http://www.cs.cornell.edu/~laurejt/papers/dada-preprint.pdf>



Yes, they can.

