DECOREIDEA: DATA SCIENCE MEETS INTERIOR DESIGN

Louisa Reilly

WHY SHOULD WE CARE?

Interior design styles are difficult to explain without a frame of reference

Aid communication between interior designers and their clientele

DESIGN STYLES

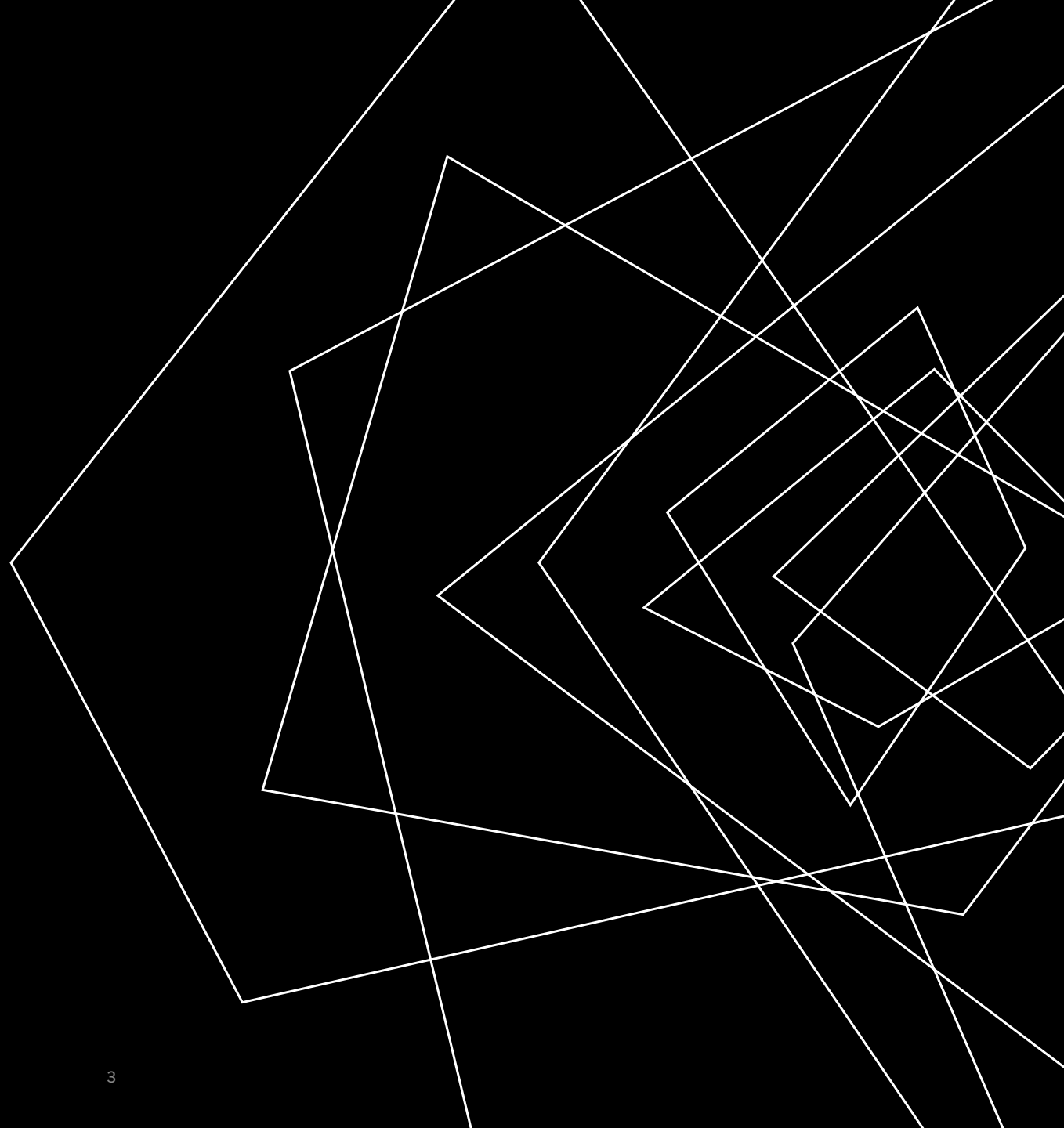|	
Bohemian	Rustic
Contemporary	Scandinavian
Industrial	Traditional
Modern	Translational

DESIGN STYLES

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DESIGN STYLES

Bohemian   **Rustic**

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DESIGN STYLES

Bohemian

Contemporary

Industrial
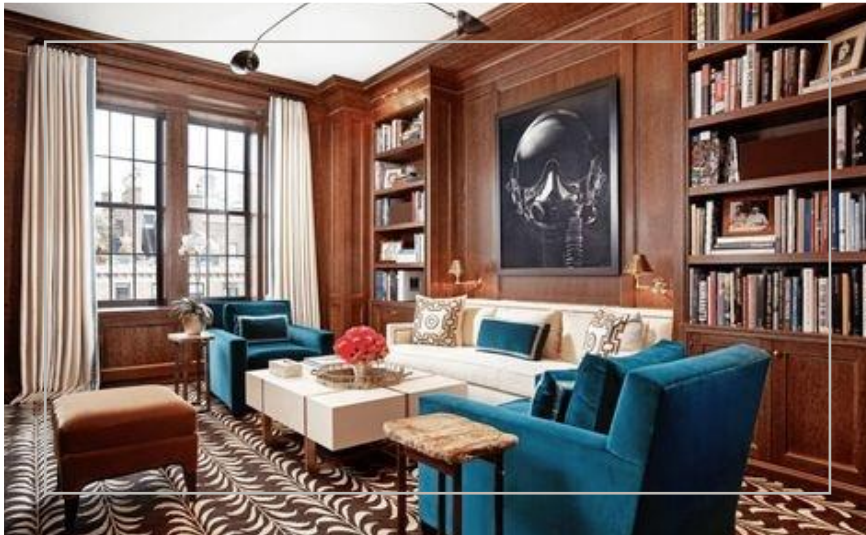
Modern

Rustic

Scandinavian

Traditional

Translational

DESIGN STYLES

Bohemian

Contemporary

Industrial

Modern

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Scandinavian

Traditional

Translational

2021

DESIGN STYLES

|	
Bohemian	Rustic
Contemporary	Scandinavian
Industrial	Traditional
Modern	**Translational**

TRANSLATIONAL

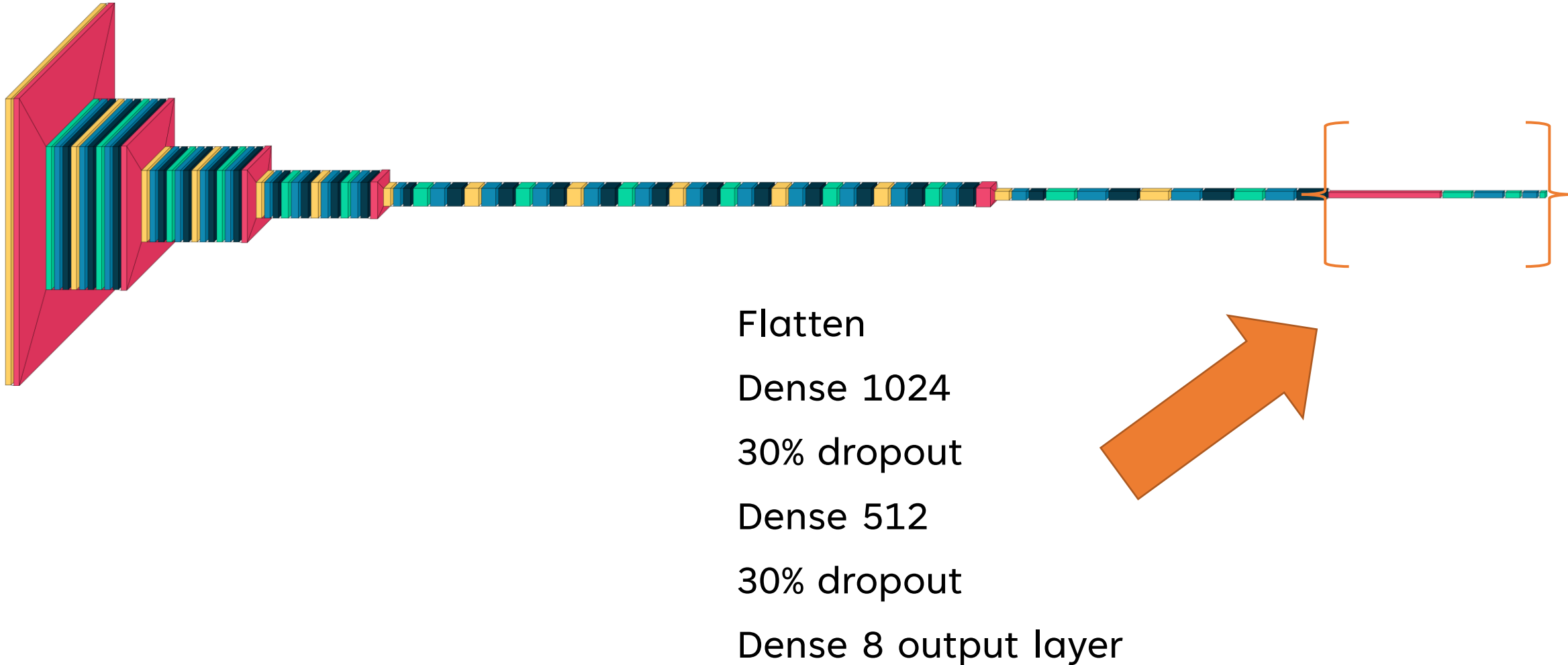Combination of traditional and modern/contemporary

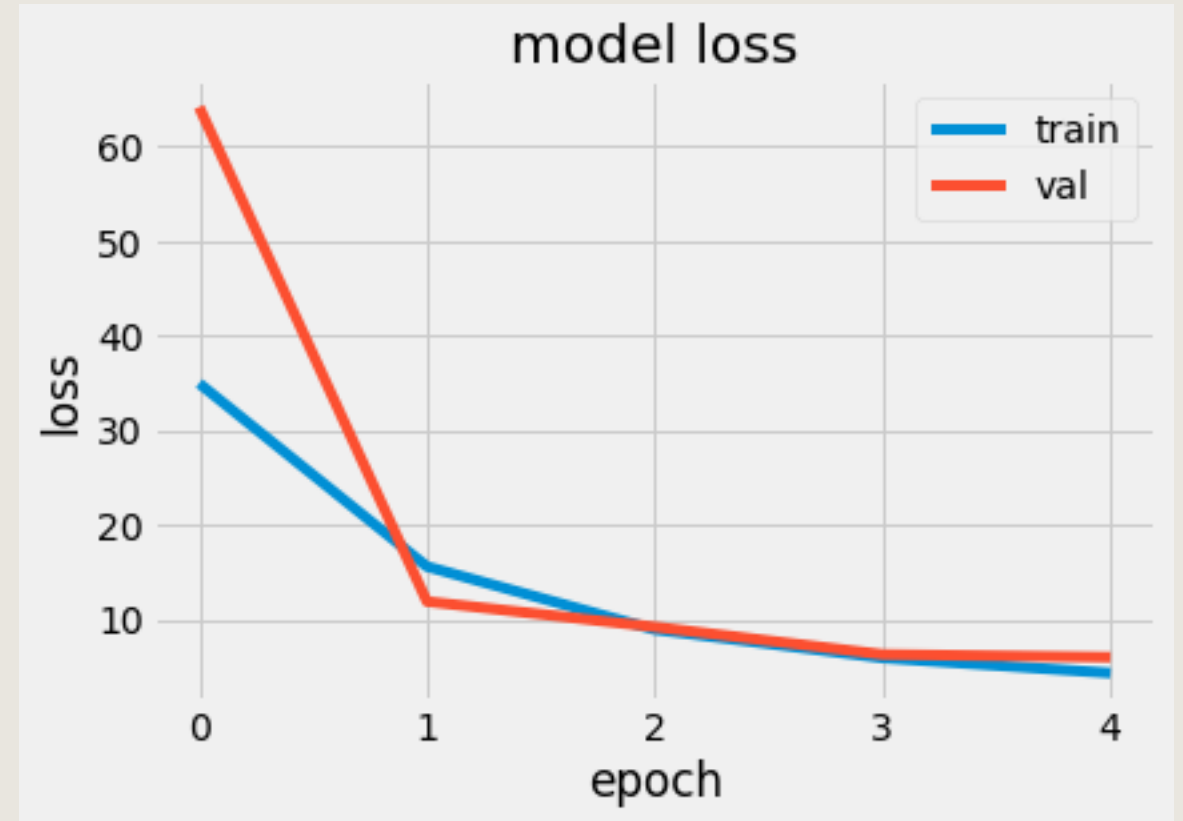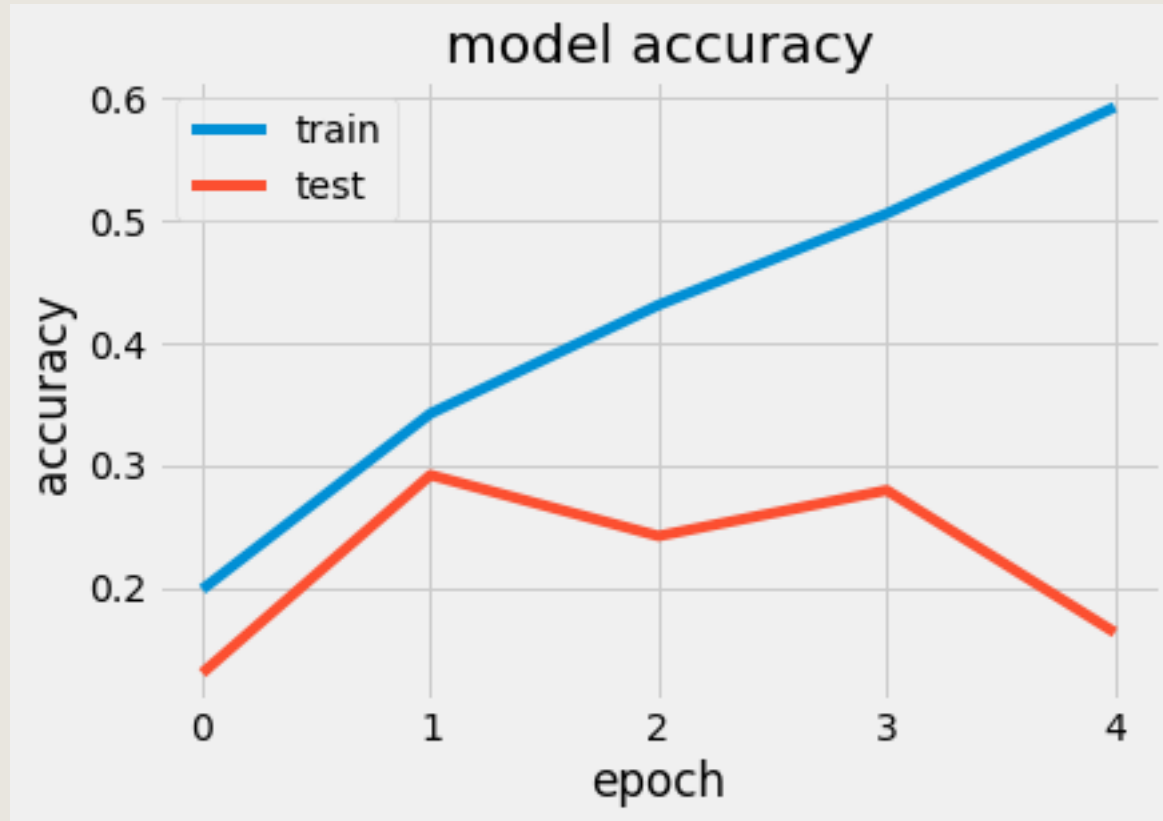Many other classes have elements of each other incorporated into the design

MOBILENET BASE AND NOVEL NN

MOBILENET BASE AND NOVEL NN

Flatten

Dense 1024

30% dropout

Dense 512

30% dropout

Dense 8 output layer
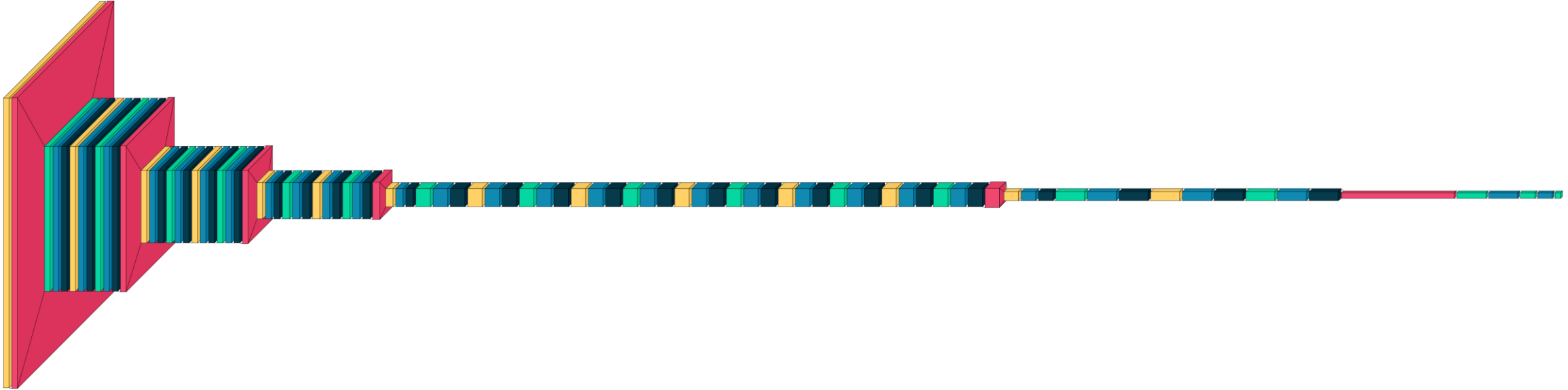
NN TRAINING AND OVERFITTING

Mobilenet Regularized

	0	1
0	58	371
1	4	50

Actual
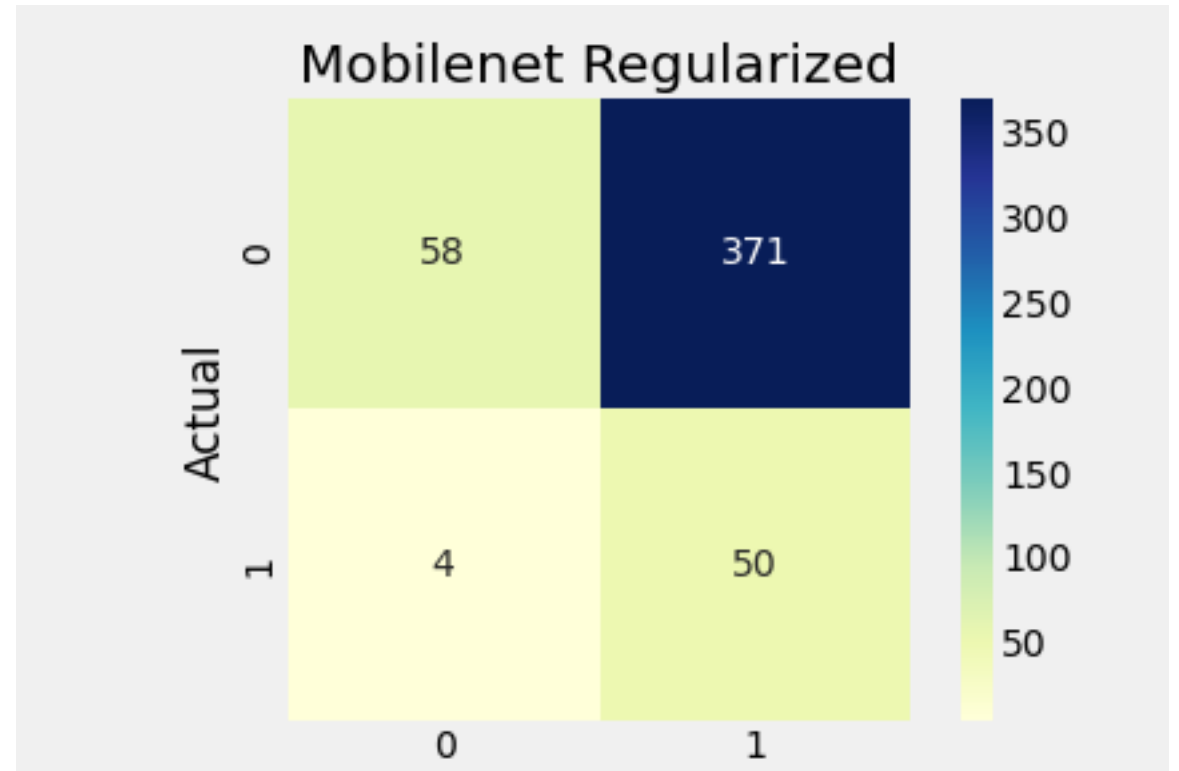
GUESSING ONE CLASS?

For Modern Style, 0 = not modern, 1 = is modern

FINAL THOUGHTS

Conclusions

Model is overfitting

Dropout and L2 regularization not help

Default is to guess modern style

Future Work

Scrape more data

Image augmentation

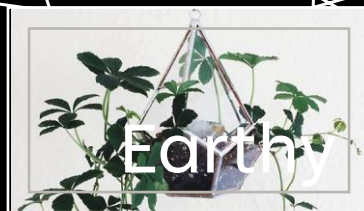Fluid Classes

THANK YOU

Any Questions?

ABOUT THE DATASET

~300 pictures per class

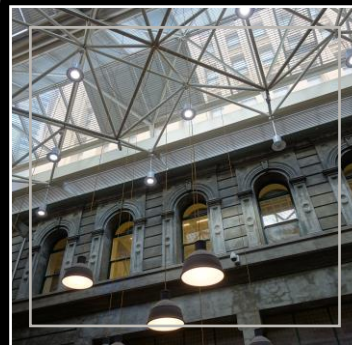Some pictures in multiple classes

A lot of overlap in styles

BOHEMIAN

Earthy

INDUSTRIAL

e growth