

INTRODUCTION







What is Pneumonia?



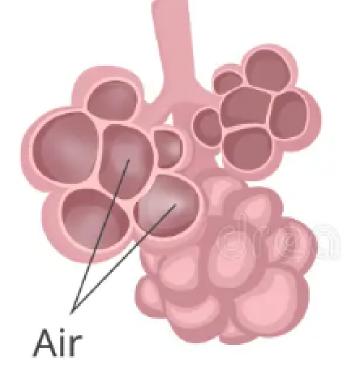


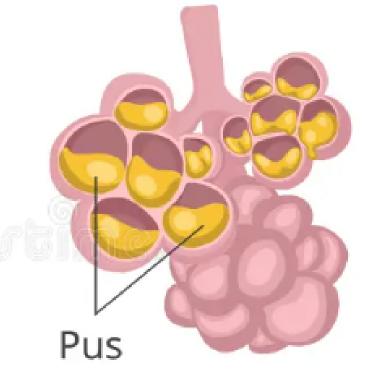
INTRODUCTION

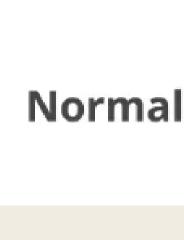












Pneumonia







no n

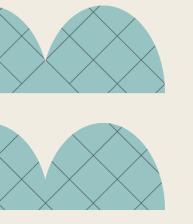
INTRODUCTION











WHYDO WE CARE?

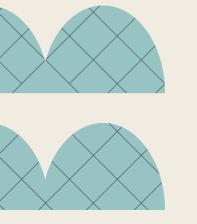


• PNEUMONIA IS THE SINGLE LARGEST INFECTIOUS CAUSE OF DEATH IN CHILDREN WORLDWIDE.



• PNEUMONIA IS ALSO A LEADING CAUSE OF DEATH IN ELDERLY PEOPLE.





WHYDO WE CARE?



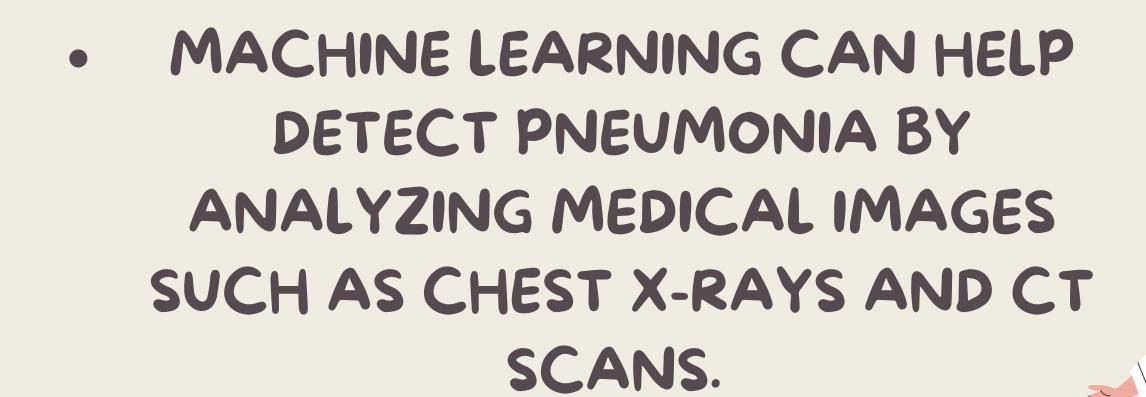
• PNEUMONIA KILLED 740,180 CHILDREN UNDER THE AGE OF 5 IN 2019 IN GUANGZHOU CHINA, ACCOUNTING FOR 22% OF ALL DEATHS IN CHILDREN AGED 1 TO 5 YEARS.

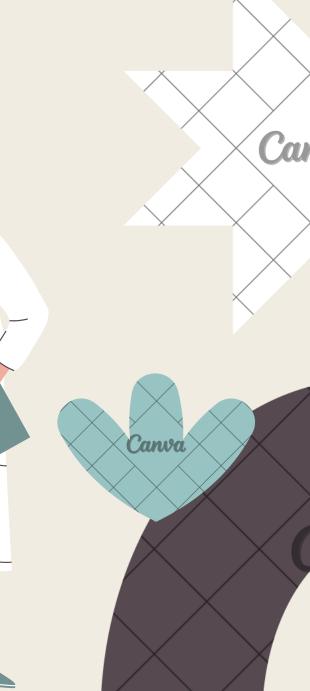




EARLY DETECTION





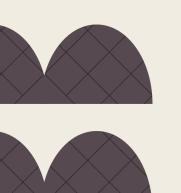


EARLY DETECTION









• IT CAN HELP IDENTIFY PATTERNS
AND FEATURES THAT ARE
DIFFICULT FOR HUMANS TO
DETECT.





DATA

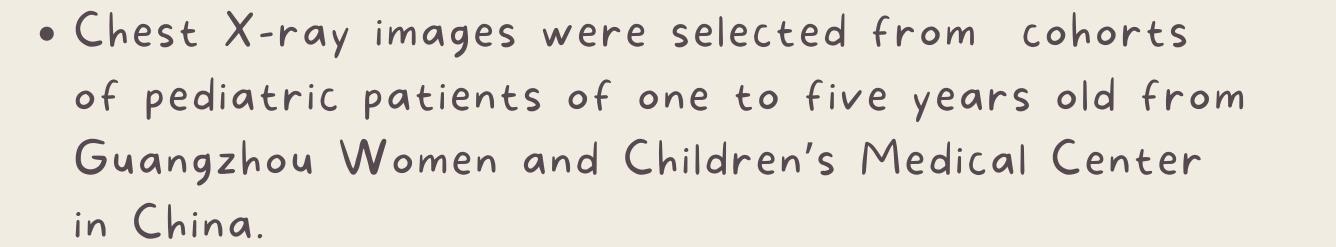
- · Downloaded from Kaggle
- The dataset is organized into 3 folders (train, test, val) and contains subfolders for each image category (Pneumonia/Normal).

 There are 5,863 X-Ray images (JPEG) and 2 categories (Pneumonia/Normal).



DATA







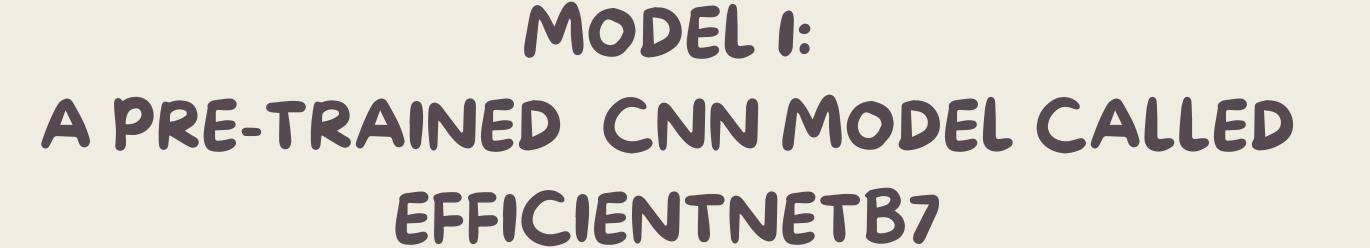






MODELS







FINE-TUNED THE EFFICIENTNETB7 PRE-TRAINED MODEL



RESULTS



MODEL 1:

	precision	recall	f1-score	support
0	0.94	0.92	0.93	234
1	0.95	0.96	0.96	390
			0.05	624
accuracy			0.95	624
macro avg	0.94	0.94	0.94	624
weighted avg	0.95	0.95	0.95	624











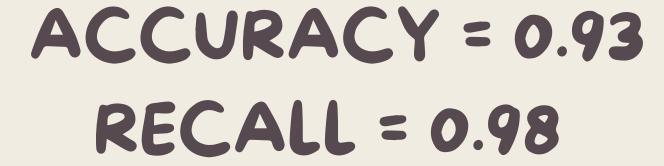
RESULTS

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MODEL 2:

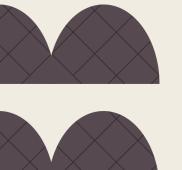
		11	C4	
	precision	recall	f1-score	support
0	0.97	0.85	0.91	234
4	0.00	Λ ΛΩ	ο ο Γ	200
1	0.92	0.98	0.95	390
accuracy			0.93	624
macro avg	0.94	0.92	0.93	624
weighted avg	0.94	0.93	0.93	624

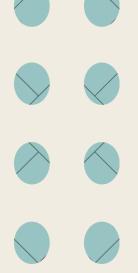












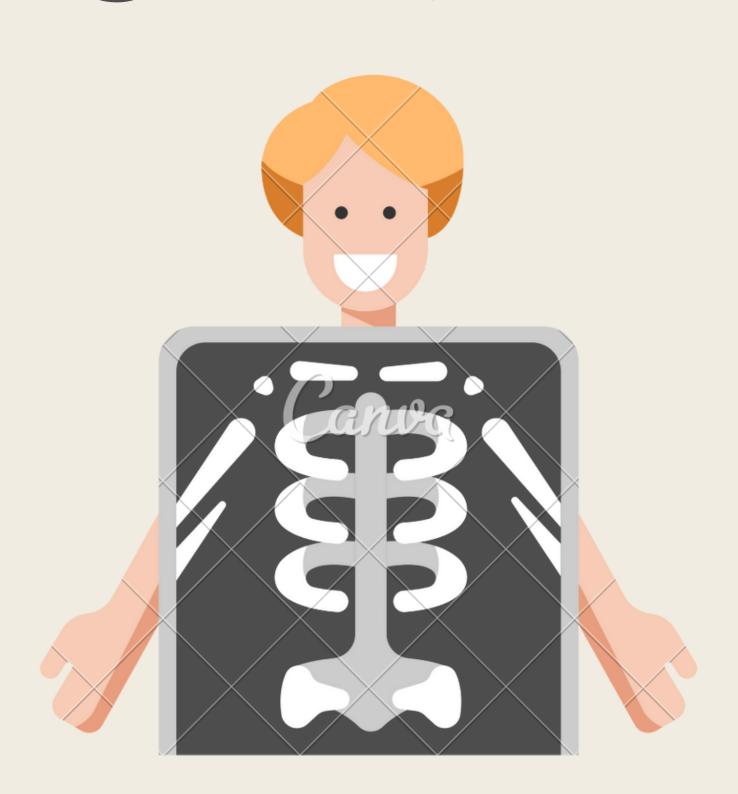
PATIENT PORTAL













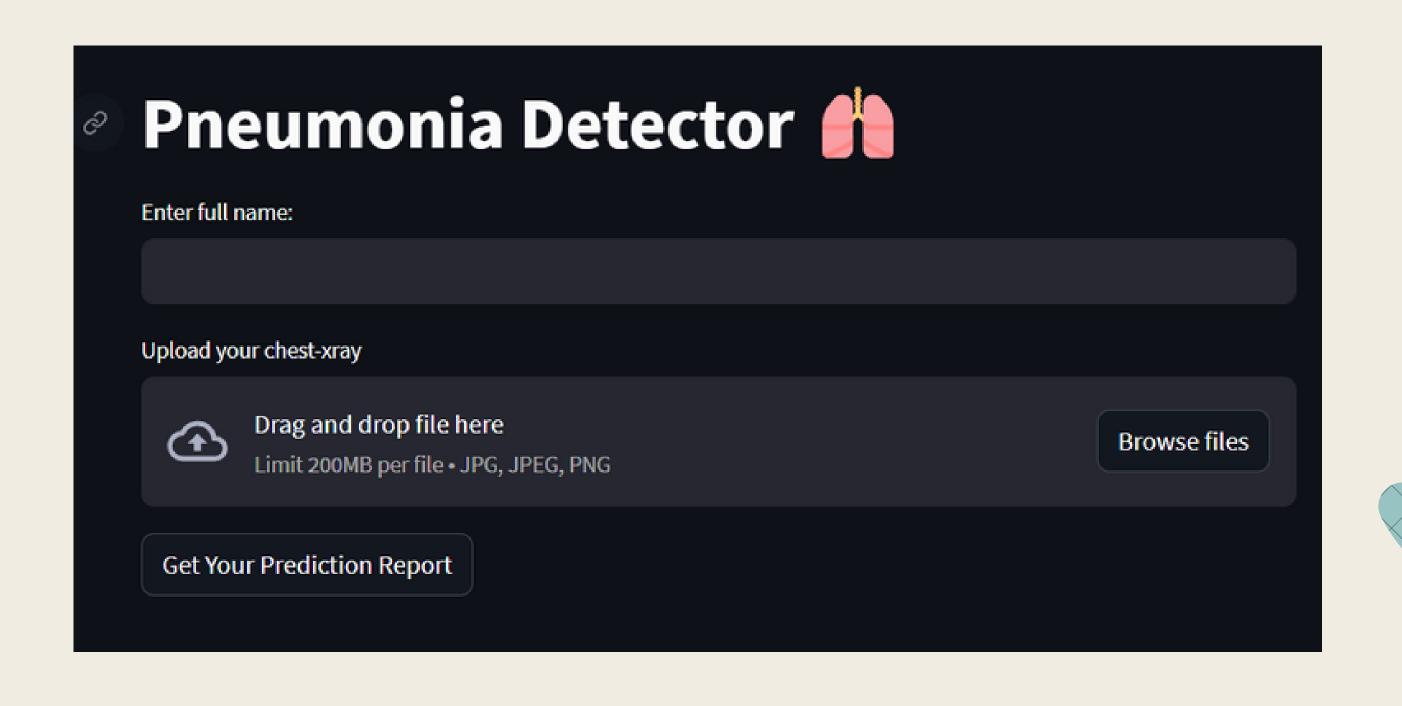




PATIENT PORTAL

















<u>GitHub</u> <u>LinkedIn</u>

