

# CNN Model Analysis

Total Images : **1,75,245**

Test : **26, 448**

Train : **1,33,896**

Validate : **14, 901**

Test : Train : Validate = **0.2 : 0.7 : 0.1**

**Capable of classifying into 18 classes namely:**

Atelectasis X-001

Brain\_Tumor X-002

Cardiomegaly X-003

Consolidation X-004

Edema X-005

Effusion X-006

Emphysema X-007

Fibrosis X-008

Hernia X-009

Infiltration X-010

Mass X-011

No\_Brain\_Finding X-012

No\_Lung\_Finding X-013

Nodule X-014

Pleural X-015

Pneumonia X-016

Pneumothorax X-017

Tuberculosis X-018

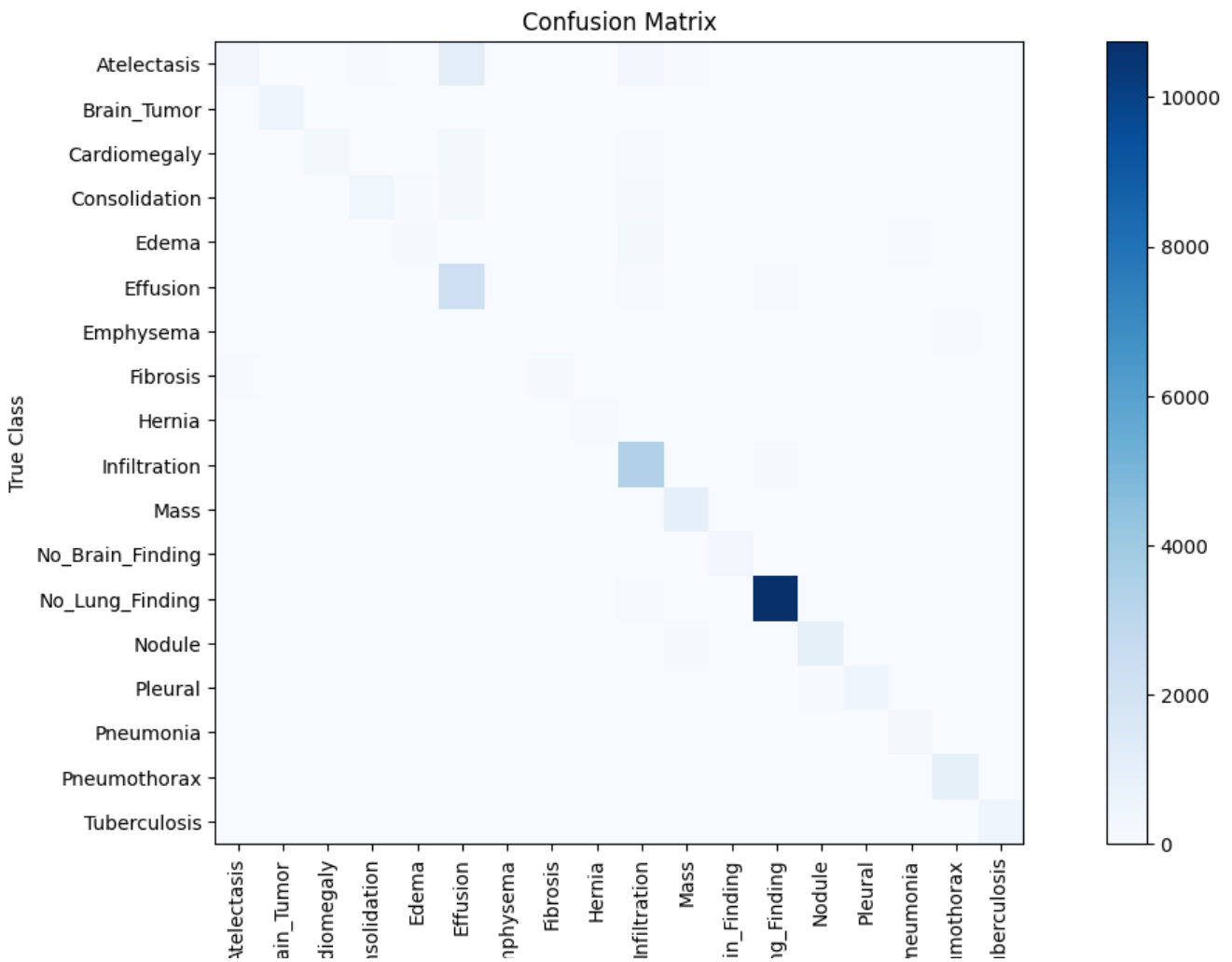
**Data source :**

<https://www.kaggle.com/code/karthikclgid/caesars>

## Report :

**Accuracy: 84.69%**

### Confusion Matrix:



## Classification Report:

	Precision	Recall	F1-Score	support
Atelectasis	0.78	0.16	0.27	2080
Brain_Tumor	1.00	1.00	1.00	453
Cardiomegaly	0.95	0.36	0.52	500
Consolidation	0.83	0.47	0.60	840
Edema	0.58	0.27	0.37	414
Effusion	0.57	0.95	0.71	2396
Emphysema	0.00	0.00	0.00	51
Fibrosis	0.88	0.40	0.55	337
Hernia	0.91	1.00	0.95	50
Infiltration	0.81	0.95	0.88	3581
Mass	0.77	0.90	0.83	1040
No_Brain_Finding	1.00	1.00	1.00	376
No_Lung_Finding	0.97	0.99	0.98	10897
Nodule	0.86	0.80	0.83	1140
Pleural	0.85	0.79	0.81	600
Pneumonia	0.60	0.77	0.67	258
Pneumothorax	0.83	0.96	0.89	954
Tuberculosis	0.99	1.00	0.99	480

Accuracy			0.85	26447
Macro Average	<b>0.79</b>	<b>0.71</b>	<b>0.71</b>	<b>26447</b>
Weighted Average	<b>0.86</b>	<b>0.85</b>	<b>0.83</b>	<b>26447</b>