

# Google Bert

## F1 Scores

measure: 0.8191  
extension: 0.8913  
atelectasis: 0.6452  
satellite: 0.6275  
lymphadenopathy: 0.8315  
pleural: 0.8611  
distant: 0.5862  
Overall: 0.7883

## F2 Scores

measure: 0.8518  
extension: 0.9031  
atelectasis: 0.5495  
satellite: 0.5674  
lymphadenopathy: 0.8981  
pleural: 0.8073  
distant: 0.4857  
Overall: 0.7716

## Classification Report:

	precision	recall	f1-score	support
measure	0.77	0.88	0.82	88
extension	0.87	0.91	0.89	45
atelectasis	0.91	0.50	0.65	20
satellite	0.76	0.53	0.63	30
lymphadenopathy	0.74	0.95	0.83	39
pleural	0.97	0.78	0.86	40
distant	0.89	0.44	0.59	39
micro avg	0.82	0.76	0.79	301
macro avg	0.85	0.71	0.75	301
weighted avg	0.83	0.76	0.78	301
samples avg	0.49	0.50	0.49	301



## Freeze first 6 layers

### F1 Scores:

measure: 0.8939  
extension: 0.7907  
atelectasis: 0.0000  
satellite: 0.0000  
lymphadenopathy: 0.9014  
pleural: 0.7302  
distant: 0.5000  
Overall: 0.7265

### F2 Scores:

measure: 0.9029  
extension: 0.7692  
atelectasis: 0.0000  
satellite: 0.0000  
lymphadenopathy: 0.8511  
pleural: 0.6284  
distant: 0.3846

Overall: 0.6481

### Classification Report:

	precision	recall	f1-score	support
measure	0.88	0.91	0.89	88
extension	0.83	0.76	0.79	45
atelectasis	0.00	0.00	0.00	20
satellite	0.00	0.00	0.00	30
lymphadenopathy	1.00	0.82	0.90	39
pleural	1.00	0.57	0.73	40
distant	1.00	0.33	0.50	39
micro avg	0.91	0.60	0.73	301
macro avg	0.67	0.48	0.55	301
weighted avg	0.77	0.60	0.66	301
samples avg	0.42	0.40	0.41	301



## F1 Scores:

```

measure: 0.8970
extension: 0.8636
atelectasis: 0.7692
satellite: 0.7719
lymphadenopathy: 0.9600
pleural: 0.8235
distant: 0.7778
Overall: 0.8546

```

## F2 Scores:

```

measure: 0.8625
extension: 0.8520
atelectasis: 0.7576
satellite: 0.7483
lymphadenopathy: 0.9375
pleural: 0.7447
distant: 0.7407
Overall: 0.8214

```

## Classification Report:

	precision	recall	f1-score	support
measure	0.96	0.84	0.90	88
extension	0.88	0.84	0.86	45
atelectasis	0.79	0.75	0.77	20
satellite	0.81	0.73	0.77	30
lymphadenopathy	1.00	0.92	0.96	39
pleural	1.00	0.70	0.82	40
distant	0.85	0.72	0.78	39
micro avg	0.92	0.80	0.85	301
macro avg	0.90	0.79	0.84	301
weighted avg	0.92	0.80	0.85	301
samples avg	0.54	0.52	0.53	301



## Freeze first 6 layers

### F1 Scores:

measure: 0.8957

extension: 0.8736

atelectasis: 0.6875

satellite: 0.8276

lymphadenopathy: 0.9487

pleural: 0.8889

distant: 0.7813

Overall: 0.8664

### F2 Scores:

measure: 0.8548

extension: 0.8559

atelectasis: 0.5978

satellite: 0.8108

lymphadenopathy: 0.9487

pleural: 0.8333

distant: 0.6906

Overall: 0.8236

Classification Report:

	precision	recall	f1-score	support
measure	0.97	0.83	0.90	88
extension	0.90	0.84	0.87	45
atelectasis	0.92	0.55	0.69	20
satellite	0.86	0.80	0.83	30
lymphadenopathy	0.95	0.95	0.95	39
pleural	1.00	0.80	0.89	40
distant	1.00	0.64	0.78	39
micro avg	0.95	0.80	0.87	301
macro avg	0.94	0.77	0.84	301
weighted avg	0.95	0.80	0.86	301
samples avg	0.55	0.53	0.53	301



# BioClinical BERT

## F1 Scores:

measure: 0.9059  
extension: 0.9231  
atelectasis: 0.7647  
satellite: 0.7778  
lymphadenopathy: 0.9600  
pleural: 0.8451  
distant: 0.7879  
Overall: 0.8734

## F2 Scores:

measure: 0.8871  
extension: 0.9292  
atelectasis: 0.6915  
satellite: 0.7292  
lymphadenopathy: 0.9375  
pleural: 0.7853  
distant: 0.7104  
Overall: 0.8367

## Classification Report:

	precision	recall	f1-score	support
measure	0.94	0.88	0.91	88
extension	0.91	0.93	0.92	45
atelectasis	0.93	0.65	0.76	20
satellite	0.88	0.70	0.78	30
lymphadenopathy	1.00	0.92	0.96	39
pleural	0.97	0.75	0.85	40
distant	0.96	0.67	0.79	39
micro avg	0.94	0.81	0.87	301
macro avg	0.94	0.79	0.85	301
weighted avg	0.94	0.81	0.87	301
samples avg	0.54	0.53	0.54	301



## Freeze first 6 layers

### F1 Scores:

measure: 0.8889  
extension: 0.8966  
atelectasis: 0.6667  
satellite: 0.7812  
lymphadenopathy: 0.9367  
pleural: 0.8406  
distant: 0.8611  
Overall: 0.8622

### F2 Scores:

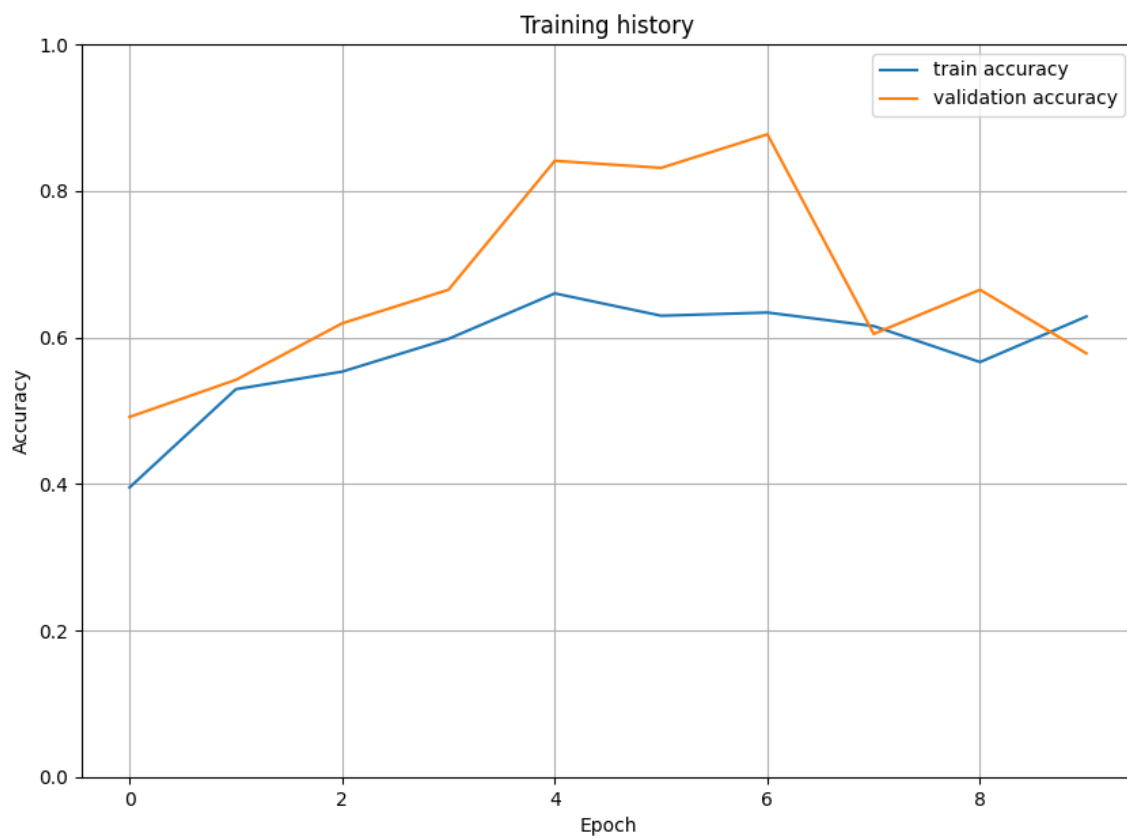
measure: 0.8451  
extension: 0.8784  
atelectasis: 0.5914  
satellite: 0.8117  
lymphadenopathy: 0.9439  
pleural: 0.7672  
distant: 0.8201



Overall: 0.8305

Classification Report:

	precision	recall	f1-score	support
measure	0.97	0.82	0.89	88
extension	0.93	0.87	0.90	45
atelectasis	0.85	0.55	0.67	20
satellite	0.74	0.83	0.78	30
lymphadenopathy	0.93	0.95	0.94	39
pleural	1.00	0.72	0.84	40
distant	0.94	0.79	0.86	39
micro avg	0.92	0.81	0.86	301
macro avg	0.91	0.79	0.84	301
weighted avg	0.93	0.81	0.86	301
samples avg	0.55	0.53	0.54	301



## F1 Scores:

measure: 0.9080  
extension: 0.8315  
atelectasis: 0.7778  
satellite: 0.7333  
lymphadenopathy: 0.9231  
pleural: 0.8235  
distant: 0.7606  
Overall: 0.8438

## F2 Scores:

measure: 0.9018  
extension: 0.8259  
atelectasis: 0.7292  
satellite: 0.7333  
lymphadenopathy: 0.9231  
pleural: 0.7447  
distant: 0.7181  
Overall: 0.8215

## Classification Report:

	precision	recall	f1-score	support
measure	0.92	0.90	0.91	88
extension	0.84	0.82	0.83	45
atelectasis	0.88	0.70	0.78	20
satellite	0.73	0.73	0.73	30
lymphadenopathy	0.92	0.92	0.92	39
pleural	1.00	0.70	0.82	40
distant	0.84	0.69	0.76	39
micro avg	0.88	0.81	0.84	301
macro avg	0.88	0.78	0.82	301
weighted avg	0.89	0.81	0.84	301
samples avg	0.56	0.53	0.54	301



## Freeze first 6 layers

### F1 Scores:

measure: 0.9070

extension: 0.7961

atelectasis: 0.8108

satellite: 0.6897

lymphadenopathy: 0.9487

pleural: 0.8286

distant: 0.8116

Overall: 0.8450

### F2 Scores:

measure: 0.8945

extension: 0.8613

atelectasis: 0.7732

satellite: 0.6757

lymphadenopathy: 0.9487

pleural: 0.7632

distant: 0.7527

Overall: 0.8322

Classification Report:

	precision	recall	f1-score	support
measure	0.93	0.89	0.91	88
extension	0.71	0.91	0.80	45
atelectasis	0.88	0.75	0.81	20
satellite	0.71	0.67	0.69	30
lymphadenopathy	0.95	0.95	0.95	39
pleural	0.97	0.72	0.83	40
distant	0.93	0.72	0.81	39
micro avg	0.87	0.82	0.84	301
macro avg	0.87	0.80	0.83	301
weighted avg	0.88	0.82	0.84	301
samples avg	0.55	0.54	0.54	301

