

Document Title:

# Quality Assurance Report

Project Title : 00002-qa

## Configuration Information

mode	classification
project dir	/home/heejun/Projects/Quality-Assurance/projects/
num_classes	11

## Abbreviation

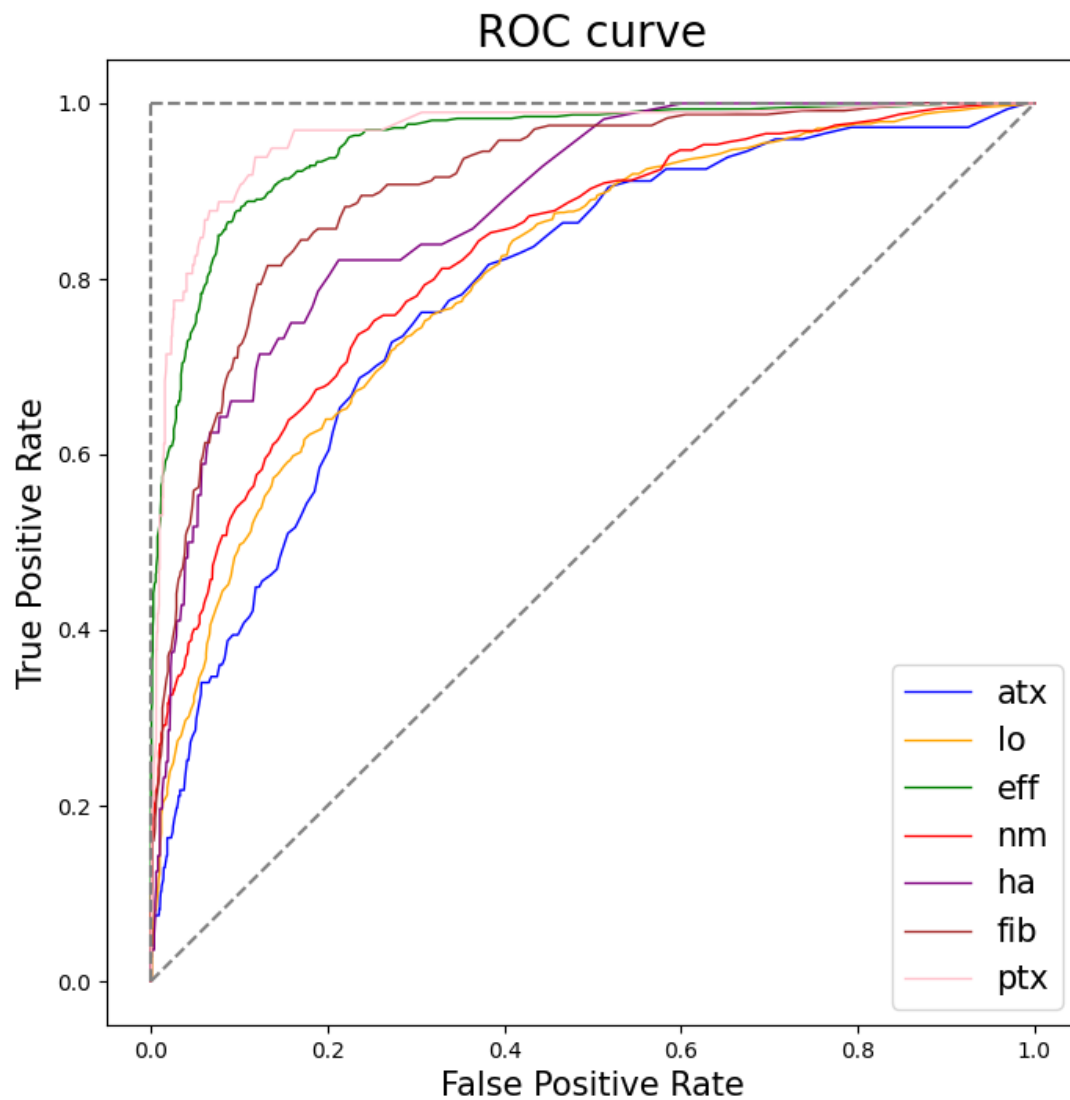
Medical Terms		Performance Metric	
atx	atelectasis	sen	sensitivity
lo	lung opacity	spe	specificity
eff	effusion	acc	accuracy
nm	nodule/mass	ppv	positive prediction value
ha	hilar abnormality	npv	negative prediction value
fib	fibrosis	p-like	positive likelihood ratio
ptx	pneumothorax	n-like	negative likelihood ratio
tb	tuberculosis	roc	receiver operating characteristic
pna	pneumonia	auc	area under roc curve
ede	edema		
nor	normal		

Dataset Name : snu

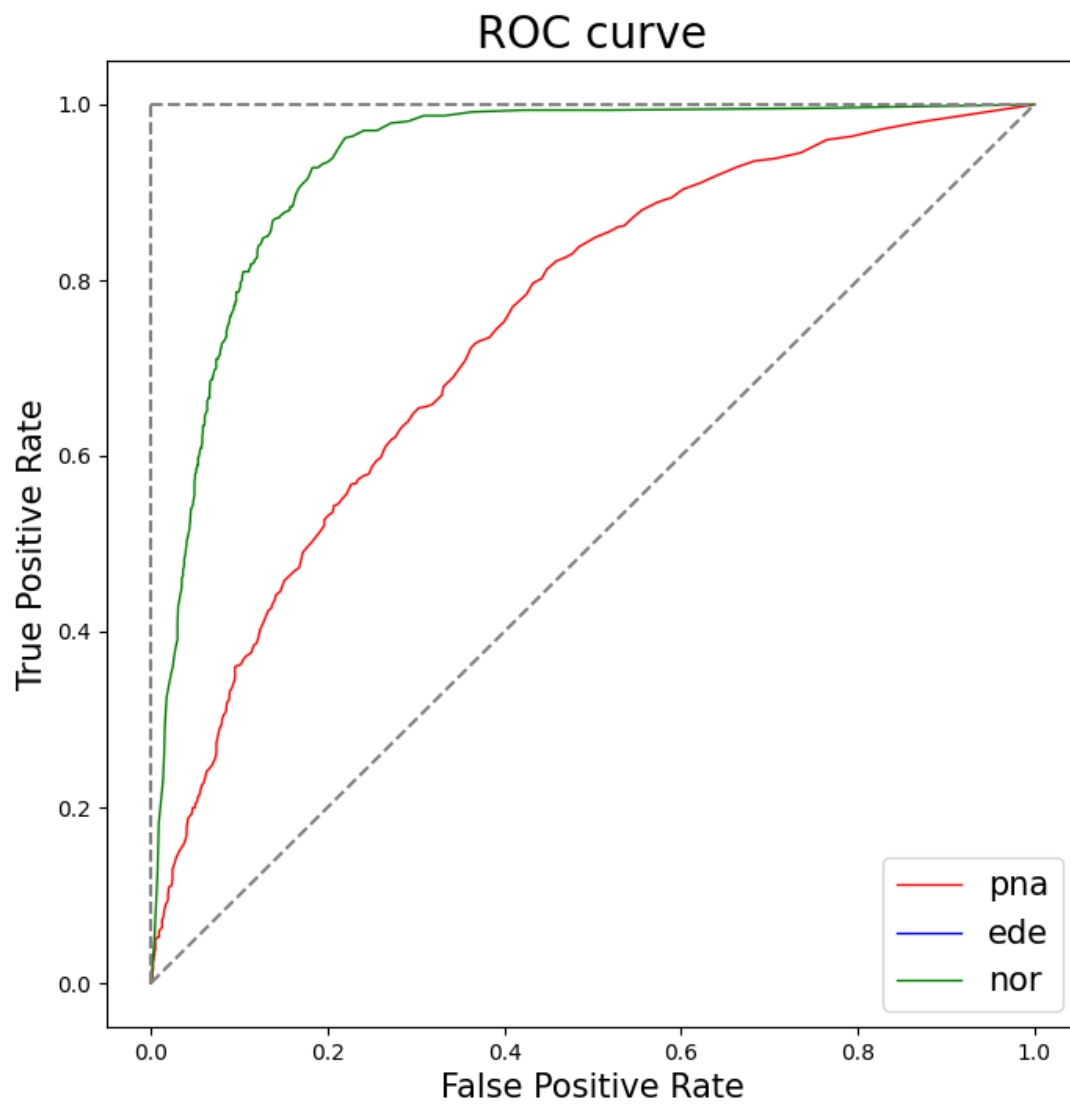
## 1. Dataset

class	atx	lo	eff	nm	ha	fib	ptx	tb	pna	ede	nor
positive	147	909	466	319	56	238	98	188	747	0	473

### 2-1. ROC Curve : findings



## 2-2. ROC Curve : disease



### 3-1. Performance : findings

class	cut-off	sen	spe	acc	ppv	npv	p-like	n-like	auc
atx	0.1	0.905	0.482	0.514	0.126	0.984	1.747	0.197	0.786
	0.3	0.395	0.902	0.863	0.248	0.948	4.031	0.671	
	0.7	0.041	0.999	0.927	0.857	0.927	41.0	0.96	
lo	0.245	0.901	0.481	0.678	0.606	0.846	1.736	0.206	0.804
	0.665	0.497	0.9	0.71	0.814	0.669	4.97	0.559	
	0.555	0.617	0.826	0.728	0.759	0.709	3.546	0.464	
eff	0.335	0.899	0.864	0.873	0.678	0.964	6.61	0.117	0.954
	0.405	0.878	0.899	0.894	0.734	0.959	8.693	0.136	
	0.465	0.85	0.924	0.906	0.78	0.951	11.184	0.162	
nm	0.14	0.903	0.502	0.568	0.264	0.963	1.813	0.193	0.829
	0.38	0.545	0.897	0.839	0.512	0.909	5.291	0.507	
	0.66	0.282	0.988	0.872	0.826	0.875	23.5	0.727	
ha	0.04	0.893	0.597	0.606	0.062	0.995	2.216	0.179	0.88
	0.17	0.661	0.901	0.895	0.167	0.989	6.677	0.376	
	0.73	0.036	1.0	0.972	1.0	0.972	inf	0.964	
fib	0.2	0.899	0.741	0.76	0.327	0.981	3.471	0.136	0.907
	0.365	0.723	0.901	0.879	0.506	0.959	7.303	0.307	
	0.52	0.458	0.969	0.906	0.673	0.927	14.774	0.559	
ptx	0.115	0.898	0.903	0.903	0.331	0.994	9.258	0.113	0.964
	0.11	0.908	0.898	0.899	0.322	0.995	8.902	0.102	
	0.45	0.714	0.983	0.969	0.686	0.985	42.0	0.291	

### 3-2. Performance : disease

class	cut-off	sen	spe	acc	ppv	npv	p-like	n-like	auc
pna	0.06	0.959	0.293	0.344	0.1	0.989	1.356	0.14	0.746
	0.475	0.163	0.978	0.916	0.375	0.934	7.409	0.856	
	0.395	0.252	0.959	0.905	0.333	0.94	6.146	0.78	
ede	0.0	1.0	0.0	0.47	0.47	nan	1.0	nan	0.0
	0.0	1.0	0.0	0.47	0.47	nan	1.0	nan	
	0.735	0.367	0.938	0.67	0.839	0.626	5.919	0.675	
nor	0.12	0.981	0.682	0.754	0.495	0.991	3.085	0.028	0.933
	0.335	0.899	0.864	0.873	0.678	0.964	6.61	0.117	
	0.345	0.897	0.869	0.875	0.684	0.964	6.847	0.119	

Dataset Name : fit

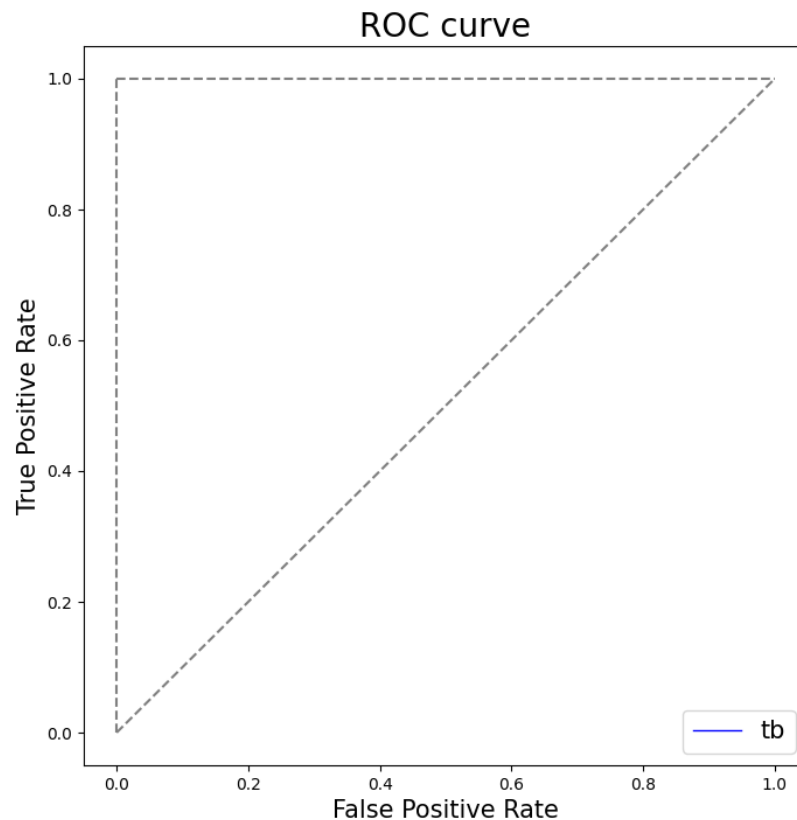
## 1. Dataset

class	tb	total
positive	0	1032

## 2. Performance

class	cut-off	sen	spe	acc	ppv	npv	p-like	n-like	auc
tb	0.0	nan	0.0	0.0	0.0	nan	nan	nan	0.0
	0.0	nan	0.0	0.0	0.0	nan	nan	nan	
	0.97	nan	1.0	1.0	nan	1.0	nan	nan	

## 3. ROC Curve



Dataset Name : plco

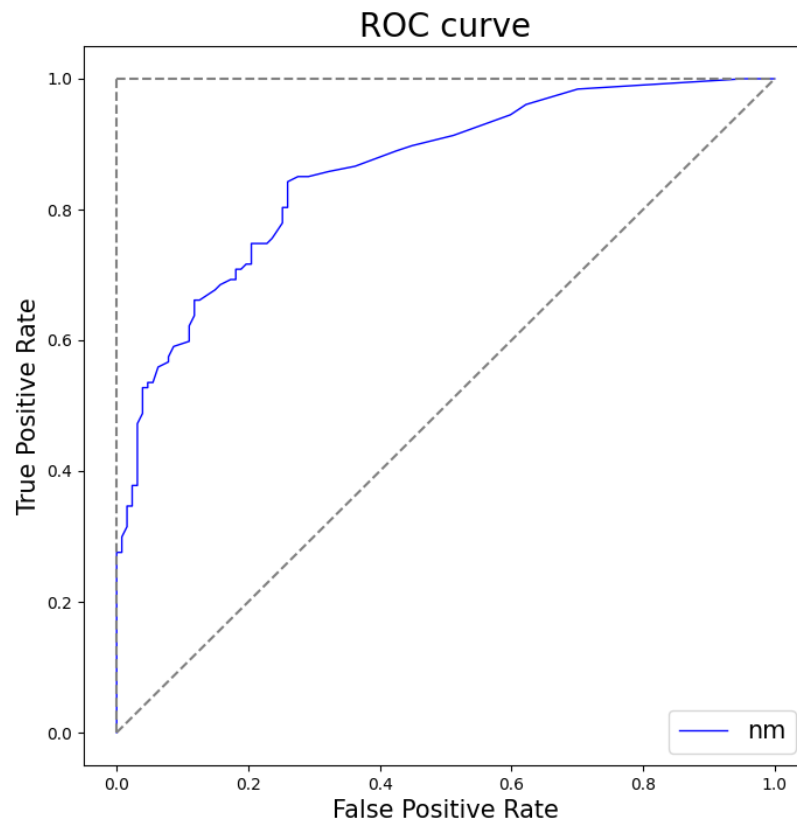
## 1. Dataset

class	nm	total
positive	127	254

## 2. Performance

class	cut-off	sen	spe	acc	ppv	npv	p-like	n-like	auc
nm	0.06	0.898	0.551	0.724	0.667	0.843	2.0	0.185	0.859
	0.22	0.622	0.89	0.756	0.849	0.702	5.655	0.425	
	0.09	0.843	0.74	0.791	0.764	0.825	3.242	0.212	

## 3. ROC Curve





Dataset Name : rsna

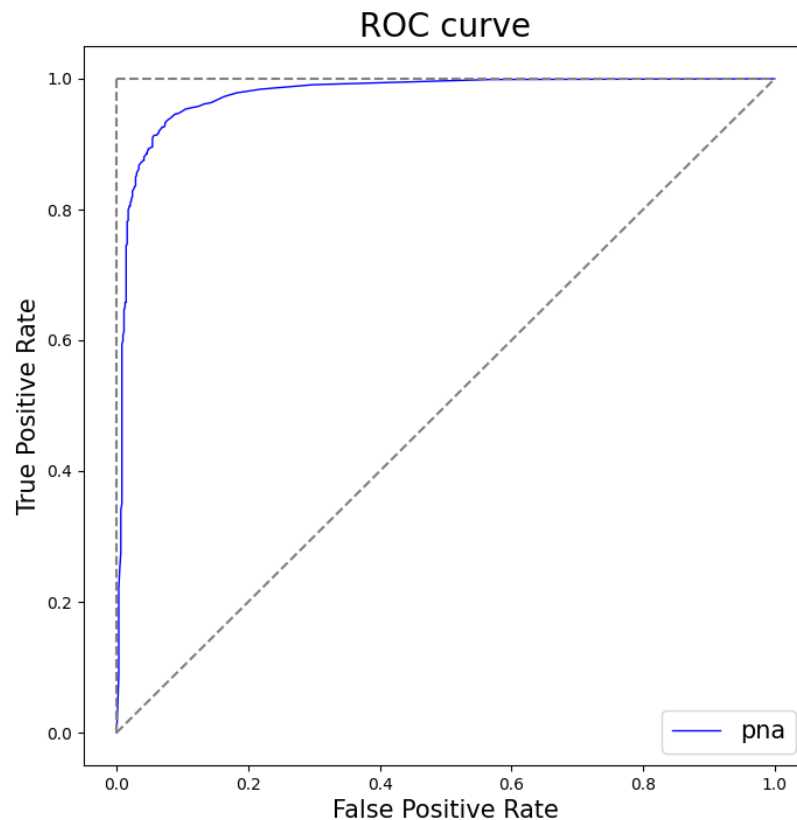
## 1. Dataset

class	pna	total
positive	880	1505

## 2. Performance

class	cut-off	sen	spe	acc	ppv	npv	p-like	n-like	auc
pna	0.175	0.899	0.946	0.918	0.959	0.869	16.648	0.107	0.976
	0.055	0.95	0.901	0.93	0.931	0.928	9.596	0.055	
	0.07	0.945	0.912	0.932	0.938	0.922	10.739	0.06	

## 3. ROC Curve



Dataset Name : stpeter

## 1. Dataset

class	tb	total
positive	0	337

## 2. Performance

class	cut-off	sen	spe	acc	ppv	npv	p-like	n-like	auc
tb	0.0	nan	0.0	0.0	0.0	nan	nan	nan	0.0
	0.0	nan	0.0	0.0	0.0	nan	nan	nan	
	0.985	nan	1.0	1.0	nan	1.0	nan	nan	

## 3. ROC Curve

