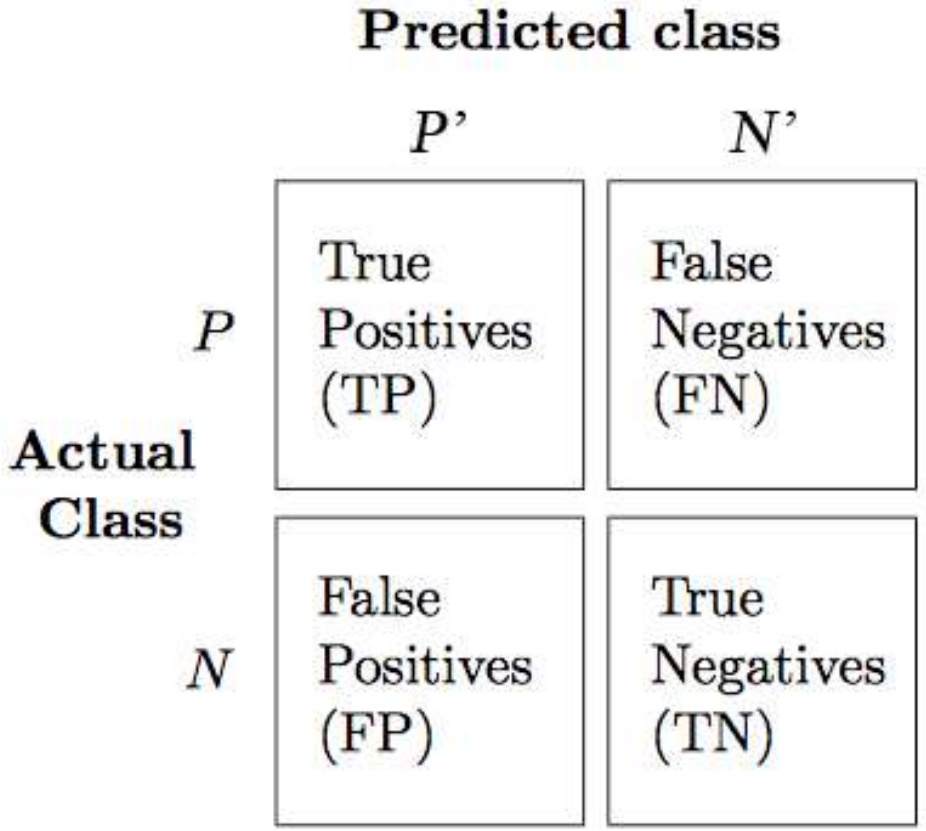
Deep Learning
Lab 06

2019.10.03

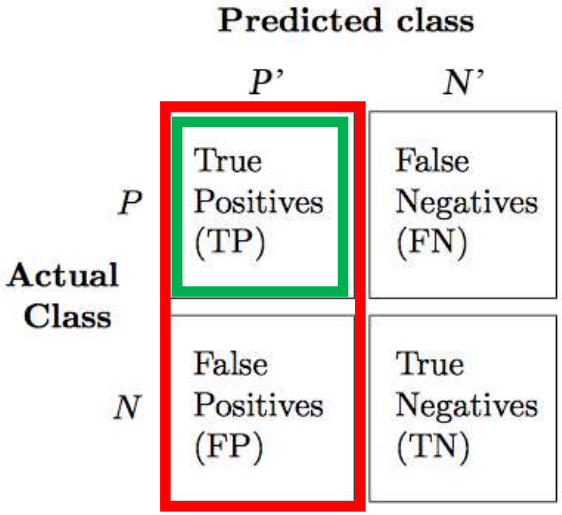
Confusion Matrix



Evaluation Metrics

- In practice:
  - *Precision*

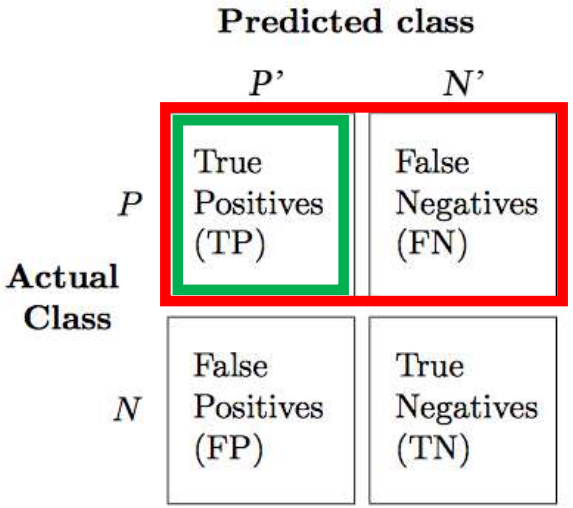
$$PRE := \frac{TP}{P'}$$



Evaluation Metrics

- In practice:
  - *Precision*
  - *Recall*

$$REC := \frac{TP}{P}$$



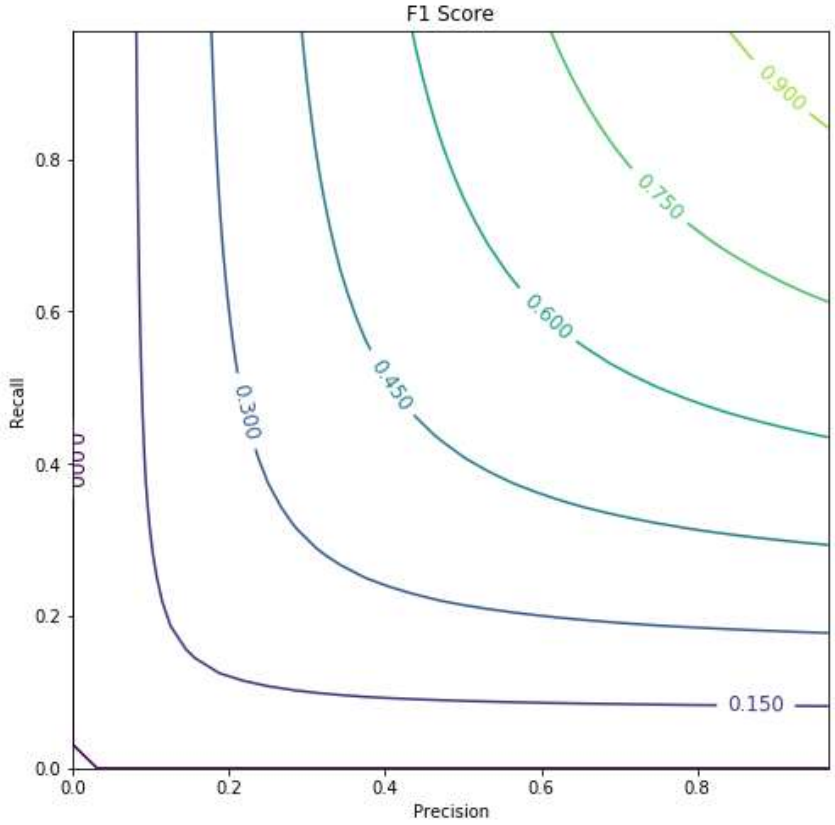
Evaluation Metrics

- In practice:
  - $Precision$
  - $Recall$
  - $F_1 - Score$

$$PRE := \frac{TP}{P'}$$

$$REC := \frac{TP}{P}$$

$$F_1 := \frac{2(REC \times PRE)}{REC + PRE}$$



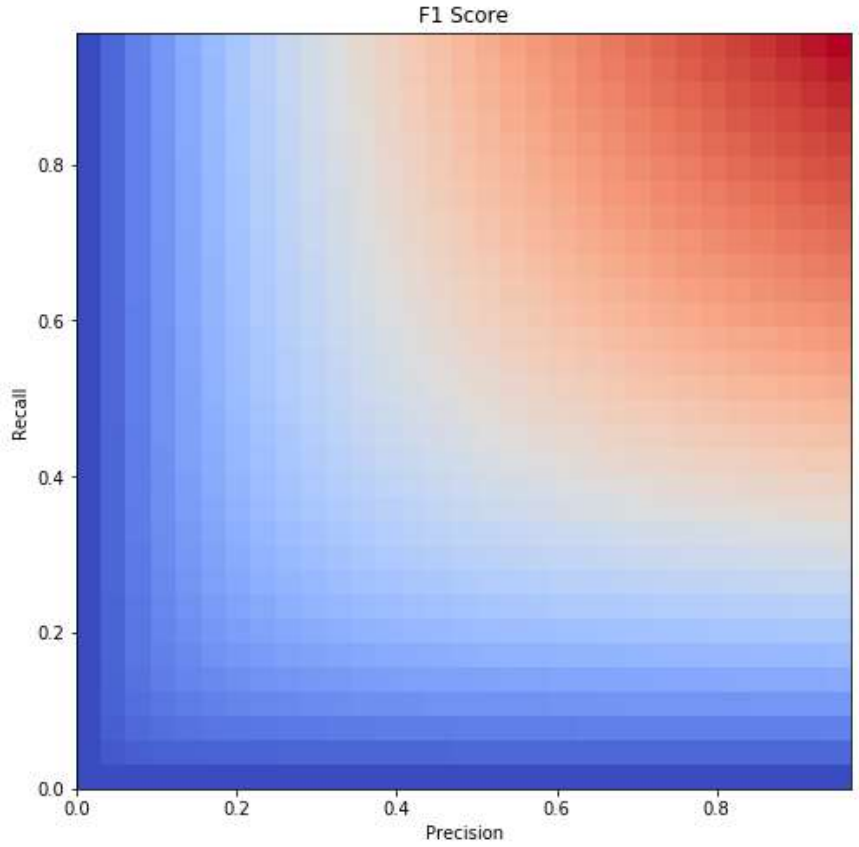
Evaluation Metrics

- In practice:
  - $Precision$
  - $Recall$
  - $F_1 - Score$

$$PRE := \frac{TP}{P'}$$

$$REC := \frac{TP}{P}$$

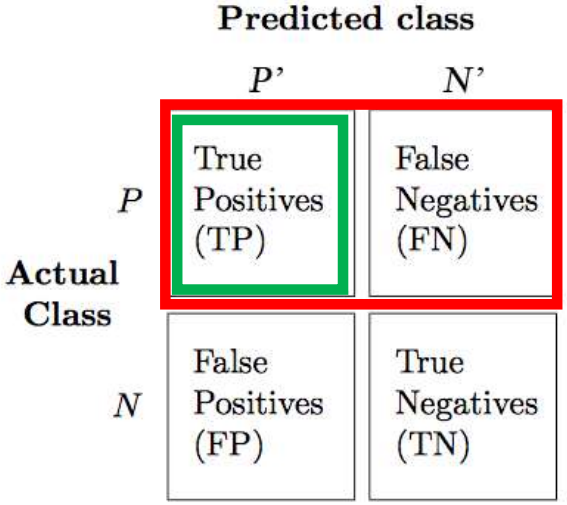
$$F_1 := \frac{2(REC \times PRE)}{REC + PRE}$$



Evaluation Metrics

- In practice:
  - *True Positive Rate*

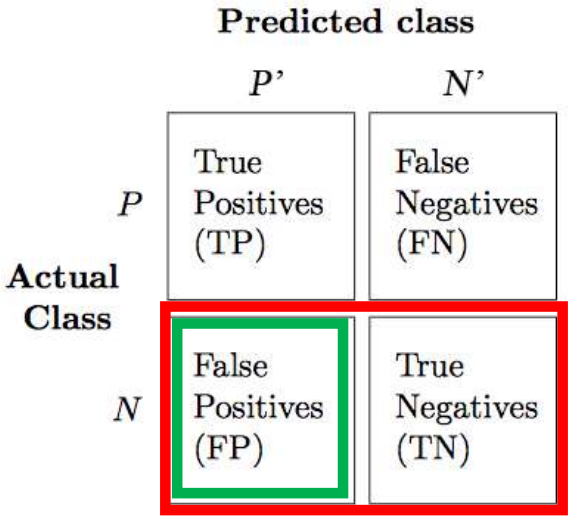
$$TPR := \frac{TP}{P}$$



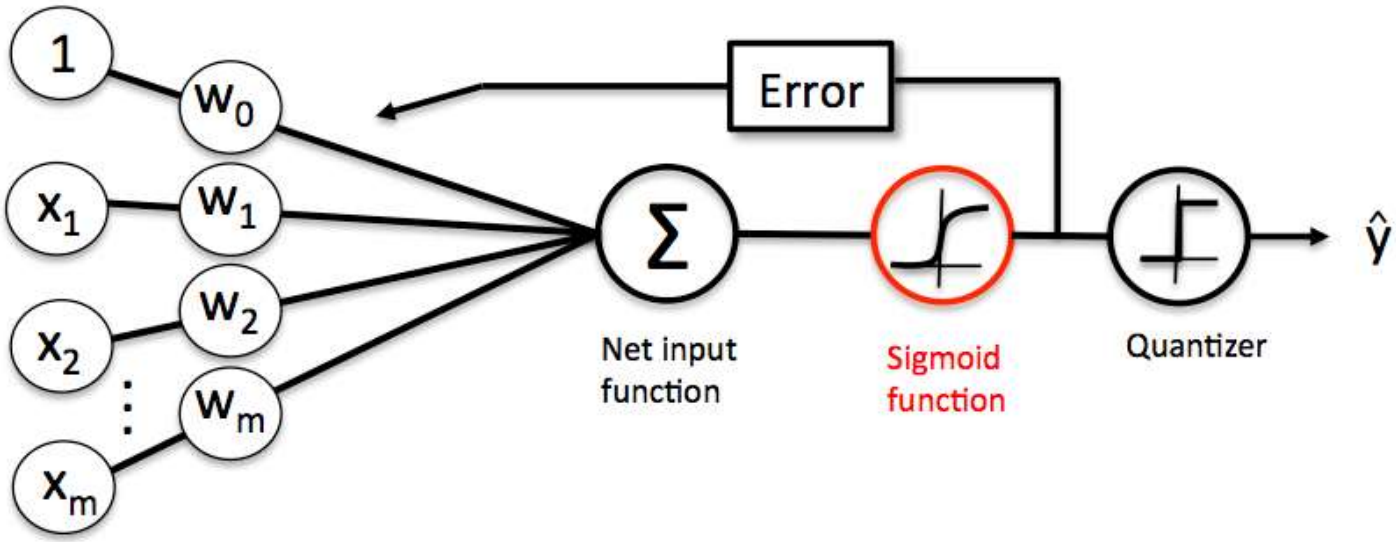
Evaluation Metrics

- In practice:
  - *True Positive Rate*
  - *False Positive Rate*

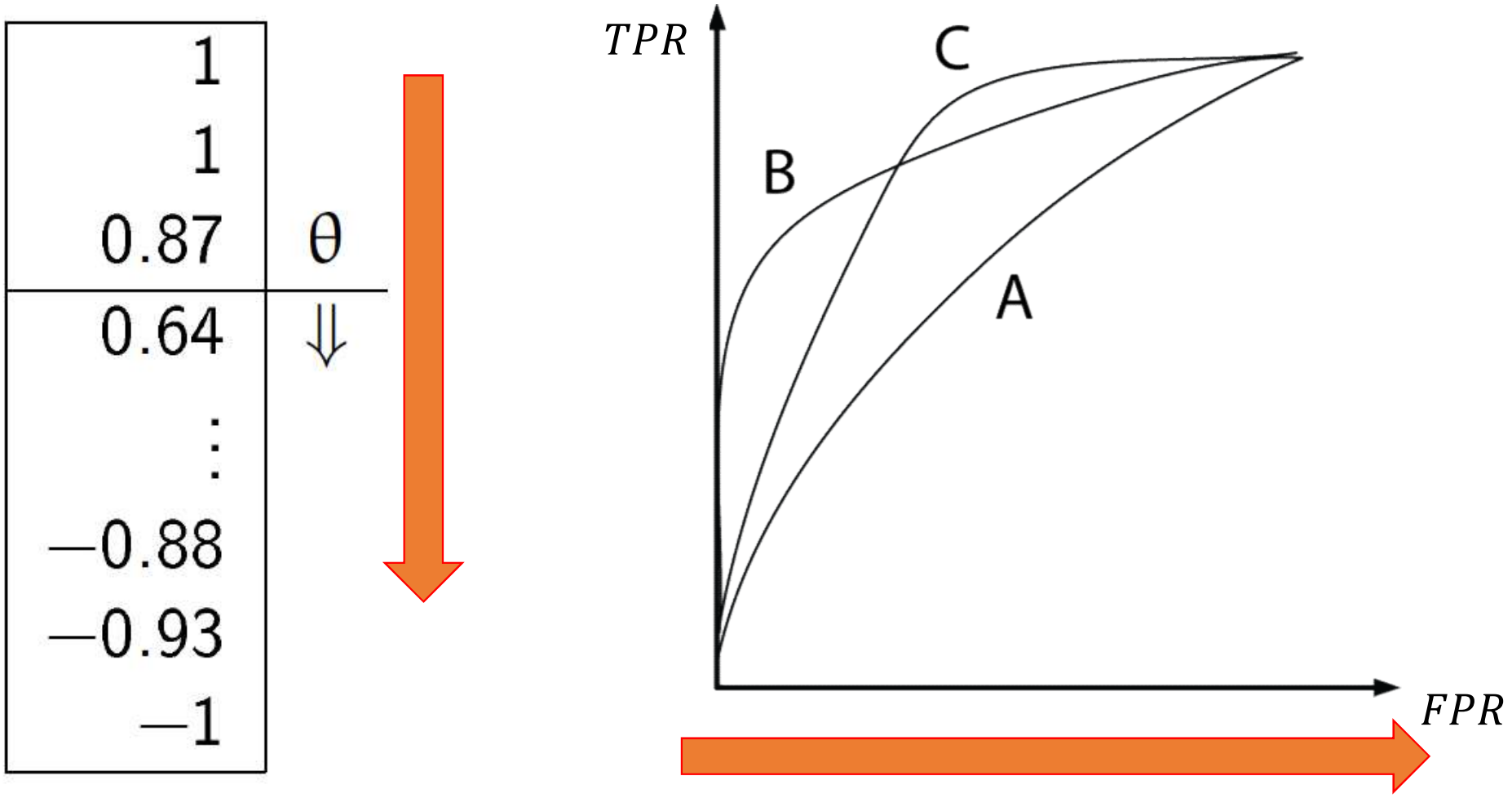
$$FPR := \frac{FP}{N}$$



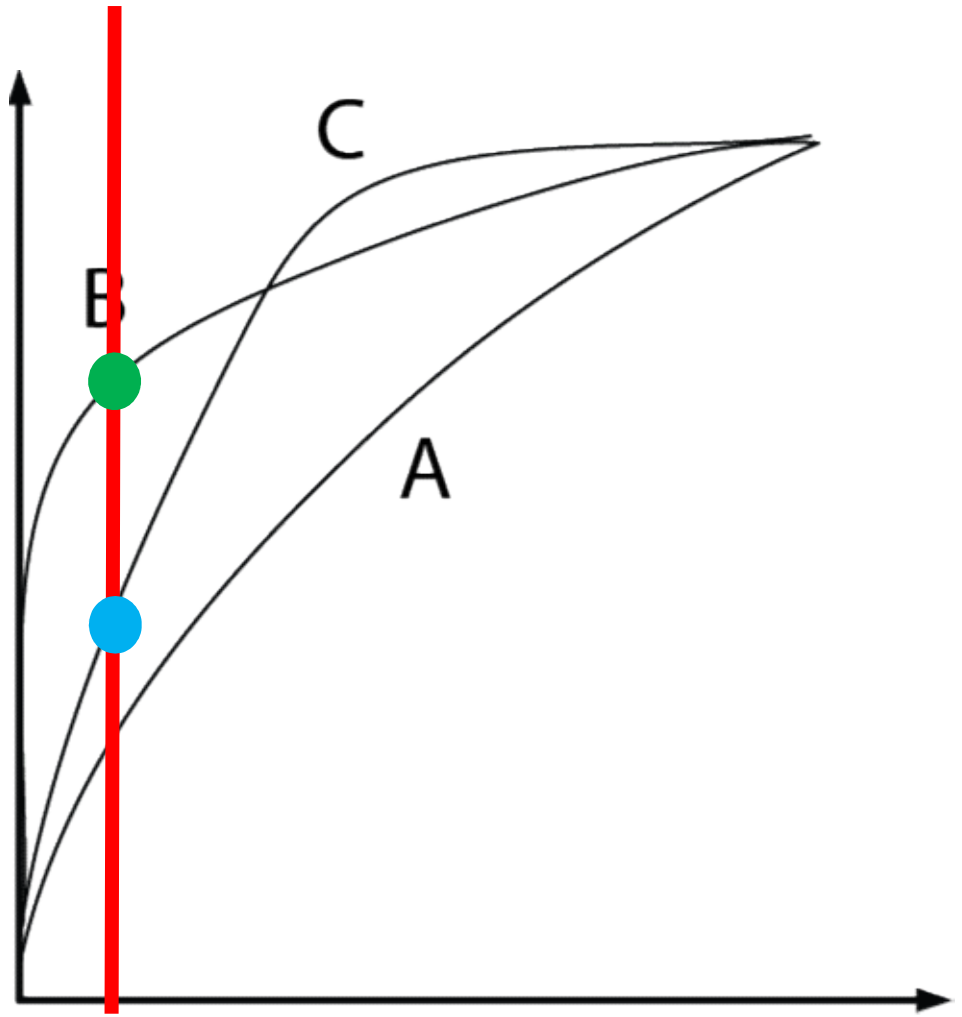
Logistic Regression



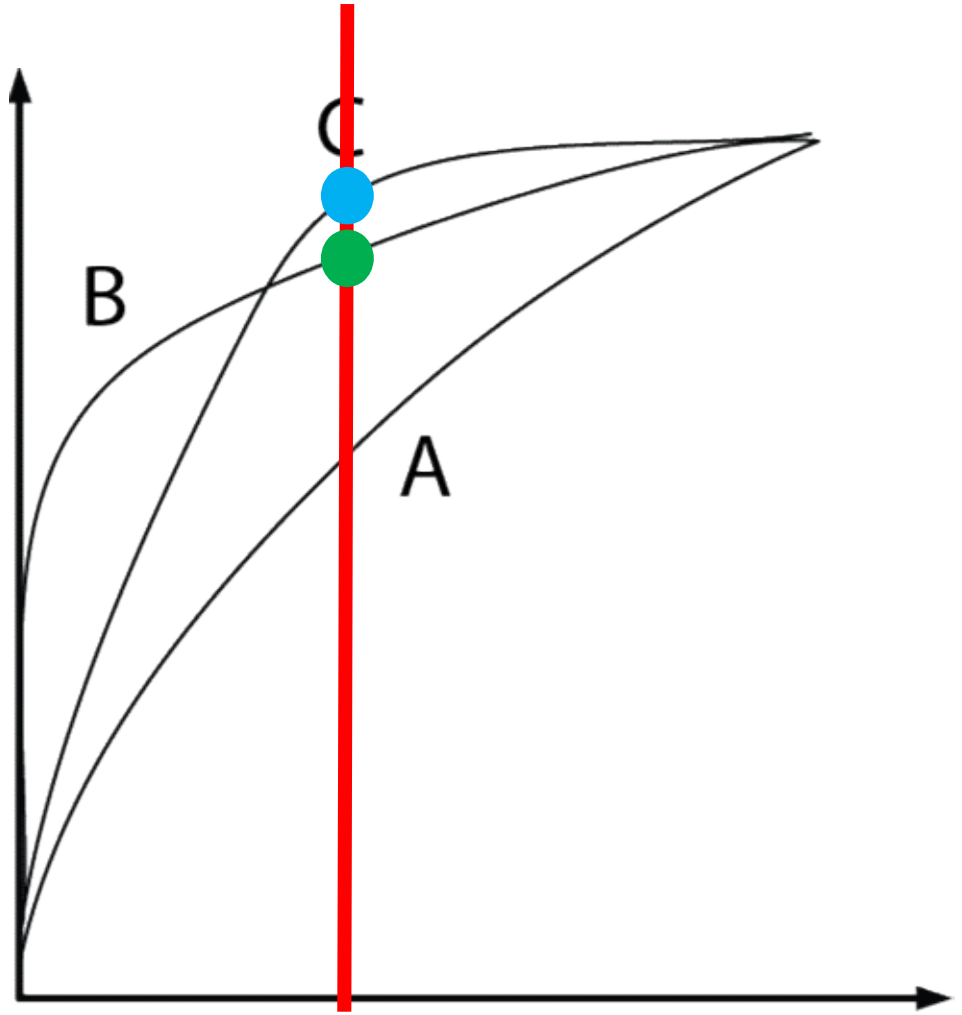
ROC Curve



ROC Curve



ROC Curve



Homework

- Arrhythmia dataset
  - 80% Training – 20% Testing

- Logistic Regression model
  - Handcrafted
  - $F_1 - Score$ of confusion matrix on test-set should be at least 0.75

Homework

- Arrhythmia dataset
- Logistic Regression model

- Deadline : 2019/10/10 (Thr) 23:59