



Overview

Week 1

Week 2

Week 3

Grades

Notes

Discussion Forums

Messages

Course Info

# Week 2

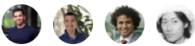
AI for Medical Diagnosis

## Week 2

Discuss this week's modules here.  
92 threads · Last post a day ago

Go to forum

## Evaluating models



By the end of this week, you will practice implementing standard evaluation metrics to see how well a model performs in diagnosing diseases.

## Learning Objectives

- Calculate true positives, true negatives, false positives, false negatives.
- Calculate sensitivity and specificity
- Calculate Positive Predictive Value (PPV) and Negative Predictive Value (NPV).
- Understand confidence intervals, ROC curve, and F1 score.

Less

## Key evaluation metrics

▶ Video: Sensitivity, Specificity, and Evaluation Metrics 2 min

Resume

▶ Video: Accuracy in terms of conditional probability 1 min

▶ Video: Sensitivity, Specificity and Prevalence 4 min

▶ Video: PPV, NPV 2 min

▶ Video: Confusion matrix 2 min

📖 Reading: Calculating PPV in terms of sensitivity, specificity and prevalence 10 min

## How does varying the threshold affect evaluation metrics?

▶ Video: ROC curve and Threshold 1 min

▶ Video: Varying the threshold 2 min

## Interpreting confidence intervals correctly

▶ Video: Sampling from the Total Population 1 min

▶ Video: Confidence intervals 2 min

▶ Video: 95% Confidence interval 2 min

## Quiz week 2

📖 Practice Quiz: Week 2 Quiz: Evaluating machine learning models 9 questions

Programming: Evaluation metrics

 **Programming Assignment:** Evaluation of Diagnostic Models 3h Due Nov 16, 1:59 AM CST

