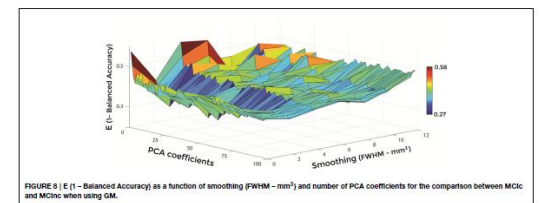
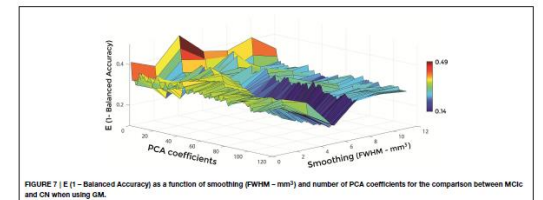
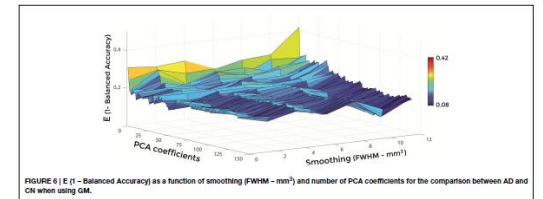
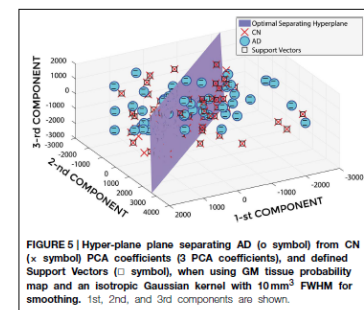
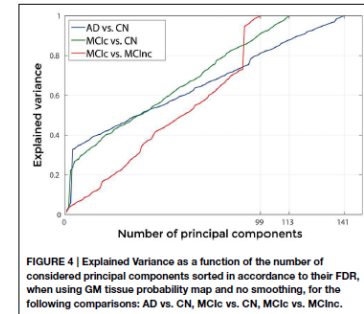
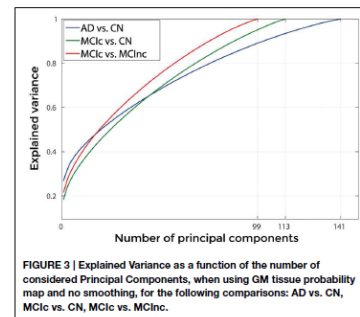
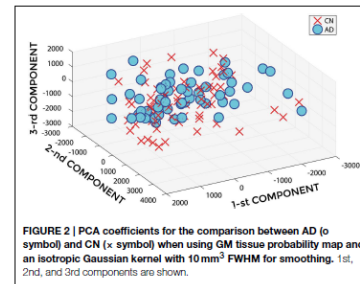


Machine learning in Healthcare

Machine learning in Healthcare

Main topics

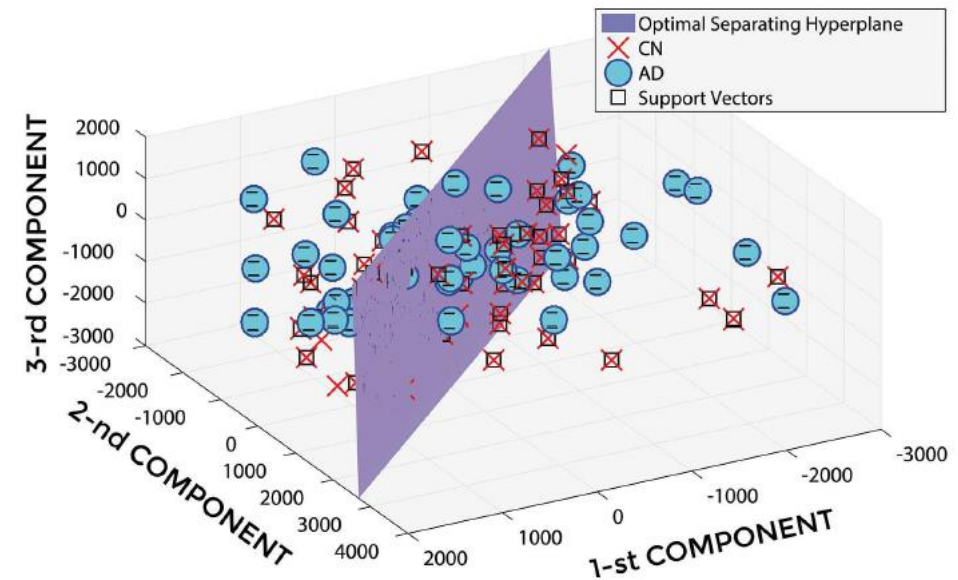
- Machine learning and the «data life cycle»
- Validation and classification metrics
- Feature extraction
- Feature selection
- ML classifiers



Machine learning in Healthcare

Main topics

- Machine learning and the «data life cycle»
- Validation and classification metrics
- Feature extraction
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Machine learning in Healthcare

Main topics

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All Features



Feature Selection



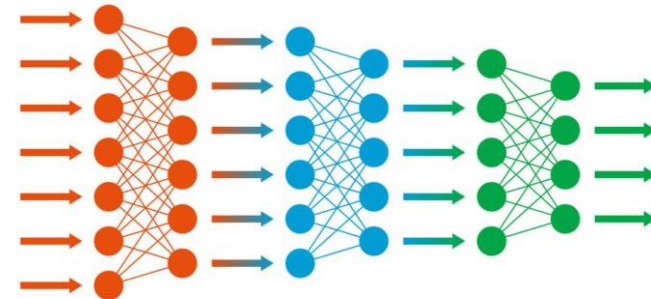
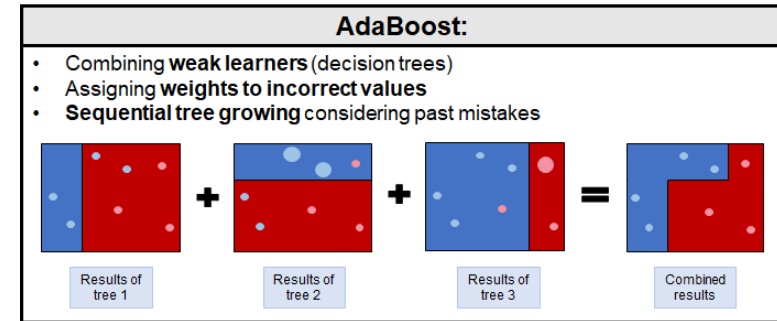
Final Features



Machine learning in Healthcare

Main topics

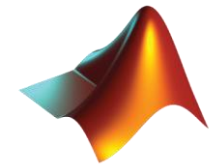
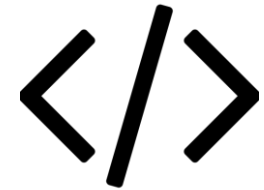
- Machine learning and the «data life cycle»
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Machine learning in Healthcare

Requirements

- Basic skills of coding (Matlab -> Python)
- Updates @ <https://christiansalvatore.github.io/machinelearning-iusspavia>



MATLAB



Machine learning in Healthcare

Evaluation

- (Group) ML-model competition:
 - First place -> 3 points
 - Second place -> 2 points
 - Third place -> 1 point
- (Group) Project Presentation up to 20,5 points
- (Individual) Oral examination up to 10,5 points

(Laude with > 30 points)



Machine learning in Healthcare

Calendar

16 March 2023, h 18-20	ML in healthcare
20 March 2023, h 18-20	XRays - CT - PET - MRI - US </>
23 March 2023, h 18-20	Validation-Evaluation - Under-Overfitting - AI application to medical imaging </>
27 March 2023, h 18-20	Segmentation - Feature Extraction </>
31 March 2023, h 16-19	Radiomics </>
03 April 2023, h 18-20	Feature Selection </>
14 April 2023, h 16-19	Class Imbalance - Decision Trees
17 April 2023, h 18-20	SVM </>
20 April 2023, h 18-20	Ensemble of Classifiers </>
28 April 2023, h 16-19	NN e Deep Learning </>
12 May 2023, h 16-18	Esposizione progetti

Examinations

18 May 2023 h 11-13
8 June 2023 h 11-13
29 June 2023 h 11-13

