Automatic Detection and Segmentation of Brain Tumor Using Random Forest Approach

Leonard Brenk October 26, 2020

Contents

1	$\mathbf{Int}_{\mathbf{I}}$	roduction to ensemble learning methods	3
	1.1	Binary Decision Tree	3
		1.1.1 Basics	3
		1.1.2 Training	3
		1.1.3 Testing	3
	1.2	Bagging	3
	1.3	Random Forest	3
2	Inti	roduction to the Paper	3
	2.1	Author, topic, release	3
	2.2	Motivation	3
	2.3	BRATS Data Set	3
	2.4	Data Processing	3
3	Random Forest in Brain MRI		
	3.1	Training Trees	3
	3.2	Post Processing	3
4	Results		
	4.1	Sample Size	3
	4.2	Effects of post-processing	3
	4.3	Segmentation	3

1 Introduction to ensemble learning methods

- 1.1 Binary Decision Tree
- 1.1.1 Basics
- 1.1.2 Training
- 1.1.3 Testing
- 1.2 Bagging
- 1.3 Random Forest

2 Introduction to the Paper

- 2.1 Author, topic, release
- 2.2 Motivation
- 2.3 BRATS Data Set
- 2.4 Data Processing
- 3 Random Forest in Brain MRI
- 3.1 Training Trees
- 3.2 Post Processing
- 4 Results
- 4.1 Sample Size
- 4.2 Effects of post-processing
- 4.3 Segmentation