

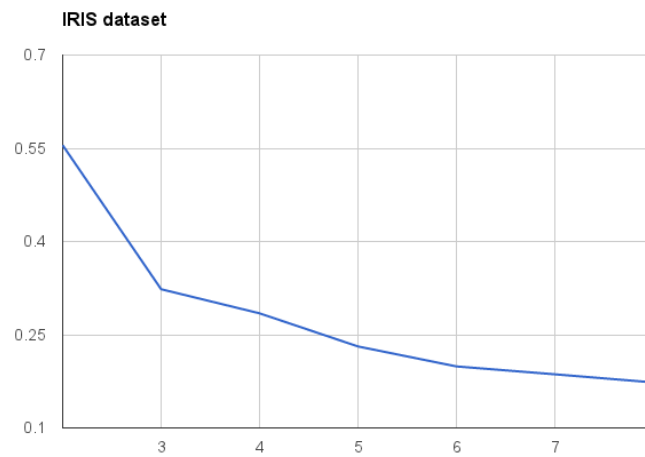
# Assignment 5: Cluster Validation

TDT4300

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## 1 Input file: iris.arff



### 1.1 Results with 2 clusters

SSE 0.5549309270365081  
SSB 6.099212044102275  
Sum: 6.654142971138784  
Silhouette 0.8230937047026322

### 1.2 Results with 3 clusters

SSE 0.3232076454434727  
SSB 6.330935325695304  
Sum: 6.654142971138777

Silhouette 0.5874875504843575

### **1.3 Results with 4 clusters**

SSE 0.28441408471063384  
SSB 6.3697288864281445  
Sum: 6.6541429711387785  
Silhouette 0.4139987136641223

### **1.4 Results with 5 clusters**

SSE 0.2311029082161889  
SSB 6.423040062922589  
Sum: 6.6541429711387785  
Silhouette 0.38433777636479777

### **1.5 Results with 6 clusters**

SSE 0.19895796313928532  
SSB 6.455185007999494  
Sum: 6.654142971138779  
Silhouette 0.3518074300182634

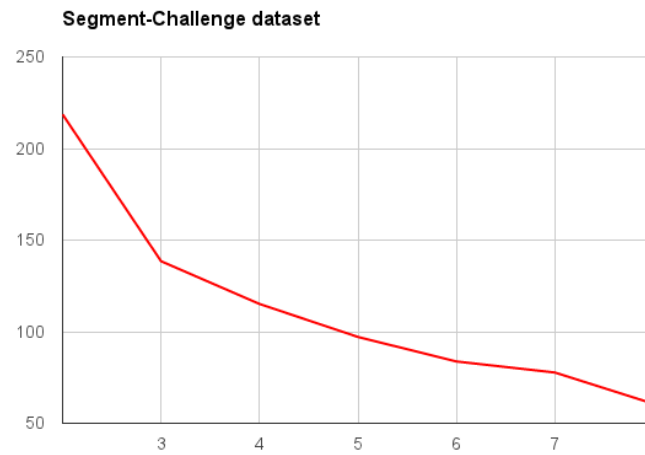
### **1.6 Results with 7 clusters**

SSE 0.18626798747964463  
SSB 6.467874983659131  
Sum: 6.654142971138776  
Silhouette 0.35026071387060254

### **1.7 Results with 8 clusters**

SSE 0.17322281603522888  
SSB 6.480920155103546  
Sum: 6.654142971138775  
Silhouette 0.34073255337201186

## 2 Input file: segment-challenge.arff



### 2.1 Results with 2 clusters

SSE 218.63399733577185  
SSB 146.3036192422363  
Sum: 364.93761657800815  
Silhouette 0.43376078328594336

### 2.2 Results with 3 clusters

SSE 138.48208000318377  
SSB 226.45553657482455  
Sum: 364.9376165780083  
Silhouette 0.40979463202547517

### 2.3 Results with 4 clusters

SSE 115.13832346281355  
SSB 249.79929311519476  
Sum: 364.9376165780083  
Silhouette 0.37322623437101127

## **2.4 Results with 5 clusters**

SSE 97.12357898653049  
SSB 267.814037591478  
Sum: 364.9376165780085  
Silhouette 0.3584521818589955

## **2.5 Results with 6 clusters**

SSE 83.73811987818425  
SSB 281.1994966998241  
Sum: 364.9376165780084  
Silhouette 0.37271606896694465

## **2.6 Results with 7 clusters**

SSE 77.70794355260699  
SSB 287.2296730254016  
Sum: 364.9376165780086  
Silhouette 0.3600736093766918

## **2.7 Results with 8 clusters**

SSE 60.659115522949655  
SSB 304.2785010550589  
Sum: 364.93761657800854  
Silhouette 0.38003837785068945