

May 31, 2024

Abstract

H anafora perigrafei thn anaptiksi kai ulopoihsh mias efarmoghs analushs dedomenwn xrisimopoiontas thn efarmogh Streamlit. H efarmogh epitrepei th fortosi dedomenwn, thn ektelesh optikopoiisewn kai thn efarmogh algorithmwn ma8isis

Contents

1	EISAGOGH	1
2	SXEDIASMOS THS EFARMOGHS	1
3	Ylopoihs	2
3.1	Fortosh dedomenwn	2
3.2	OPTIKOPOIHSEIS	2
3.3	MHXANIKH MA8HSH	2
4	APOTELESMA TWN ANALUSEWN	2
5	SUMPERASMATA	2
6	PERIGRAFH KAI SINISFORA THS OMADAS	2

1 EISAGOGH

H efarmogh pou anaptupsame exei ws stoxo na dieukolunei thn analysh dedomenwn kai thn efarmogh algori8mwn mhxanikhs ma8hshs.

2 SXEDIASMOS THS EFARMOGHS

H argitektoniki ths efarmoghs perilambanei:

- UI Layer
- Data Processing Layer
- Machine Learning Layer
- Visualization Layer

3 Ylopoihs

3.1 Fortosh dedomenwn

H efarmogh epitrepei th fortosh dedomenwn se morf CSV kai Excel.

3.2 OPTIKOPOIHSEIS

Oi xristes mporoun na ektelesoun optikopoihsis xrisimopointaw PCA kai t-SNE ka8ws kai na dhmiourgisoun diagrammata EDA.

3.3 MHXANIKH MA8HSH

Ylopoihsame algori8mous katigoriopoihsis opws KNN kai SVM kai algori8mous omadopoiisews opws K-Means kai Agglomerative Clustering.

4 APOTELESMA TWN ANALUSEWN

Parousiazoume ta apotelesmata twn algori8mwn xrhsimopointas metrikes opws h akribeia (accuracy) kai to silhouette score.

5 SUMPERASMATA

H efarmogh parexei enan apotelesmatiko tropo gia thn analush dedomenwn kai thn efarmogh algori8mwn mhxanikhs ma8shs. Oi xrhstes mporoun eu-kola na fortwsoyn ta dedomena tous kai na doun ta apotelesmata.

6 PERIGRAFH KAI SINISFORA THS OMADAS

- Melos 1: Zaravelas Michail