

Cohort construction

Automatic feature engineering

Prediction

MIMIC-III

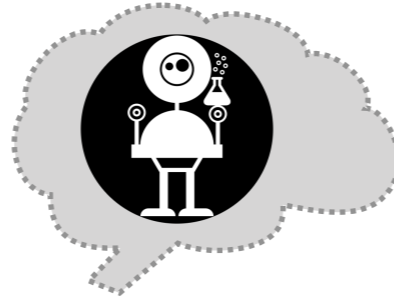
Preprocessing

one-hot encoded
 $C=\{Dx, Rx, Pr, \dots\}$

0 1 0 0 0 0 1 0 ...
 $x_t \in \{0, 1\}^{|C|}$

Preprocessing

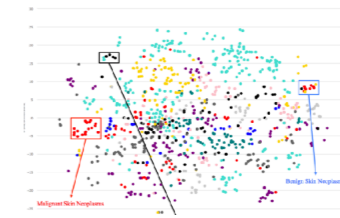
EMR embedding



fixed size
embedding vector

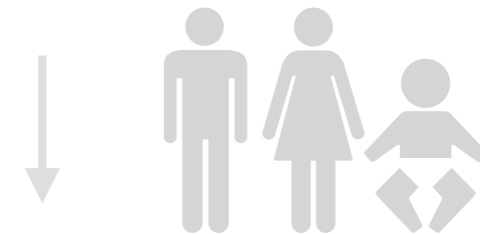
0.32 0.01 0.21 0.92 ...

Qualitative
evaluation



concept similarity
(comparison w/
CRG, CCS, ...)

Patient representation



Predictive modeling



아주대학교병원 EMR
Ajou University Hospital

EMR data representation

The goal of the project is to develop intelligent methods for patient and medical record representation learning, and ultimately predict clinical events such as patient diagnosis, prognosis, or medication categories.

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