MACHINE LEARNING IN MEDICINE

SEARCHING FOR BIOMARKERS IN MAJOR DEPRESSIVE DISORDER

ABOUT MDD
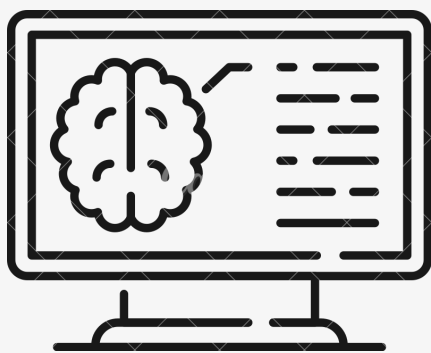
MDD is a psychiatric disorder that results in systemic atrophy across the brain over long periods of time
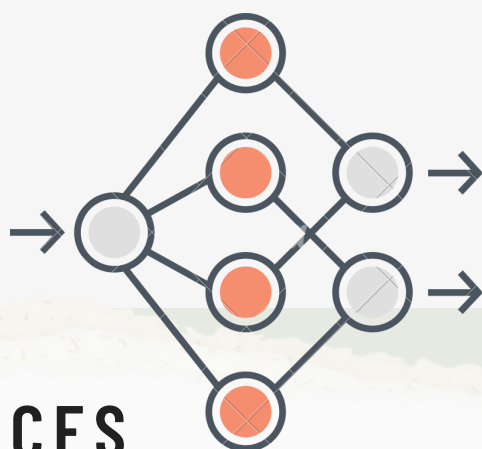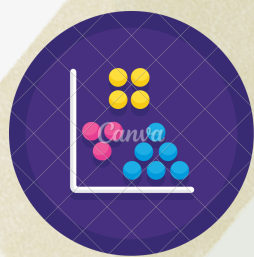
Project goals

1.) Use semi-supervised learning to identify and explain anatomical and structural biomarkers in major depressive disorder
2.) Create predictive models for depressive episodes that can be fit to patient data
3.) Format and design a team project using common machine learning practices and workflow

METHODS AND DATASETS

Datasets for neuroimaging: CAN-BIND, open fMRI, 1000 connectomes, and MaND depression database.

Methods: Clustering, dimensionality reduction and Convolutional neural nets

REFERENCES

Studying depression using imaging and machine learning methods - Meenal J. Patel, et. al