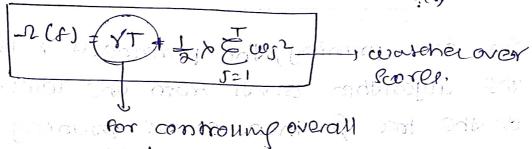
8) XG BOOS - [extreme Gradient Boltmy)

- -1 xa booth regularized data better than normal graduent booked troel.
- Ha bookry objective ainchion is the Aim or loca function. evaluated over all the preduction & a regularization Rinc for ai preduction (9 trea).

-1 cou hurchon depend on the tack being performed and a regularization term is decembed,



no el creaved leaver as cound

unlike other tree-buildy algorithms, Na Books doesn't we entropy or aini induca. Instead, et ubilities gradion (error term) and q heuran " for occasing the treel.

Theuran Por a Regr. Problem is no ch renduals and for claurfication problem, Hegran is a second order donnative or the 10 11 at the current entrante

$$hm(m) = \frac{\partial^2 L(y, f(m))}{\partial f(m)^2}$$

$$Hm = \frac{1}{2} L(m-1) cm$$

Tree-Buildup in XG Boot

- 1) Animalize the tree coult one leaf
- @ compute the "semilarity" my,

where, &-Regular Fadvon term.

3) wow, for splusting data know a trectorm.

For tree pruning, the parameta & in well the algorithm stort from the lowest level of the bruning build on the value of &.

elie, keep the brank.

& reasoned of done my new ex.

new value = value + n x preduction