Lecture - 4

Token number :- RetS4v

Report :-

The lecture started with brief information regarding paper presentation and project details where we got to know about the deadlines for paper presentation and project submission. We got to know various journals and websites to refer for selecting the topics.

After that we studied and modified the Hoeffding's Bound as

$$E_{out}(g) \leq E_{in}(g) + \sqrt{\frac{1}{2N} \log \frac{2|H|}{\delta}}$$

↳ For a finite set

Our goal is to reduce this term which can be achieved by either increasing data samples or by reducing Hypothesis set.

If $N >> \log|H|$ then

$$E_{out}(g) \approx E_{in}(g).$$

We should try to get $E_{in}(g) \approx 0$, which can be achieved by choosing hypothesis in the best optimal way.

Then we saw few examples of noise and the risk factor