Patent Dataset

Semantics Embed

Patent document

Law Embed

Patent Labels Embed

Input Tokens

Reward Function

$$r = \exp\left(-\frac{(\text{predicted\_score} - \text{target\_score})^2}{2\sigma^2}\right)$$

action $A = \{a_n | a_n \in (0, \ldots, 10), n = 1, \ldots, N\}$

reward $R(s)$

Decision Model

Patent features

N x

Transformer Block

Norm

Linear Layer

Transformer