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| **Discriminative Model** | **Generative Model** |
| a discriminative machine learning trains a model which is done by learning parameters that maximize the conditional probability**P(Y|X)**, | a generative model learns parameters by maximizing the joint probability of**P(X, Y)**. |
| Discriminative models recognize existing data i.e, discriminative modeling identifies tags and sorts data and can be used to classify data | Generative modeling produces something |
| discriminative models are useful for supervised learning tasks. | Generative models are useful for unsupervised learning tasks |
|  | Generative models need fewer data to train compared with discriminative |
|  | if we have missing data in our dataset, then Generative models can work with these missing data |
|  | time generative models are less accurate than discriminative models. |
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