

# Machine Learning

① Model Performance — Accuracy  $\uparrow\uparrow \rightarrow$  High

② Overfitting, Underfitting

③ Bias Vs Variance

① Overfitting And Underfitting

## DATASET

① Books  $\rightarrow$  TRAIN  $\rightarrow$  Model is Trained  $\rightarrow$  Accuracy  $\uparrow\uparrow \rightarrow 95\%$   
Exam  $\rightarrow$  TEST  $\rightarrow$  Model is Tested  $\rightarrow$  Accuracy  $\downarrow\downarrow \rightarrow 65\%$

} Overfitting  
 $\downarrow$   
{ low Bias  
High Variance }

② Train  $\rightarrow$  Accuracy  $\downarrow\downarrow \rightarrow 55\%$   
Test  $\rightarrow$  Accuracy  $\downarrow\downarrow \rightarrow 50\%$

} Underfitting  
 $\downarrow$   
{ High Bias  
High Variance }

## Generalized Model

TRAIN  $\rightarrow$  Acc  $\uparrow\uparrow \rightarrow 85\%$

Test  $\rightarrow$  Acc  $\uparrow\uparrow \rightarrow 86\%$

$\downarrow$   
{ low Bias  
low Variance }