30 ROUND

Mirage

Inferno

Ancient

7 DIFFERENT MAPS

Overpass

Nuke

Vertigo

OUR DATASET

◆ **Dataset Size:**
   Rows: 122,410
   Columns: 97

◆ **The dataset comprises 97 features**

map	ct_health and t_health	bomb_planted	time_left	round_winner
ordinal		ordinal		ordinal

◆ **predicting outcomes like round winners**

ARCHITECTURE

Our old architecture:

◆ Number of layers: 4

◆ Number of neurons 50

◆ without batch normalization

accuracy = 74%

HYPERPARAMETER TUNING

◆ **we decided to try Model Optimization using Keras Tuner:**

      ◆ Random search

      ◆ Hyperband

      ◆ Bayesian

◆ **after we tried them, the best one for our problem was Bayesian.**

ARCHITECTURE

◆ **Number of layers: 2**

◆ **Number of neurons 251**

◆ **With batch normalization**

◆ **learning rate: 5.05466655750670e-4**

Accuracy?

83%

CONCLUSION

- Our initial predictive model incorporated game-specific features and reached a reasonable level of accuracy.
- To further enhance model performance, we applied Keras Tuner for hyperparameter tuning.
- Bayesian Optimization was identified as the most effective method through this process.
- This tuning approach significantly improved the model's performance.
- The results underscore the importance of optimized hyperparameter tuning for achieving high predictive accuracy in complex scenarios.