## **GPT2 Access**

Generated by Hannah Westra (SHE/HER) on 10/25/2022

(Model Summary)

### **Purpose**

This is a regression model to analyze parkinsons Here are your defined target values for your model data

This is a regression model.

#### **Model evaluation**

This model is evaluated on a test set with 1876 datapoints.

## **Target values**

performance and/or other model assessment parameters:

- Top important features: 4
- Fairness difference in mean\_squared\_error
- Fairness difference in mean\_absolute\_error

Observe evidence of your model performance here:

#### Mean absolute error

11.53 is the average of the absolute difference between actual values and predicted values.

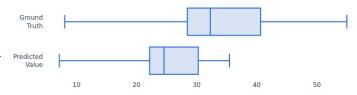
### Mean squared error

190.59 is the average of the values and predicted values.

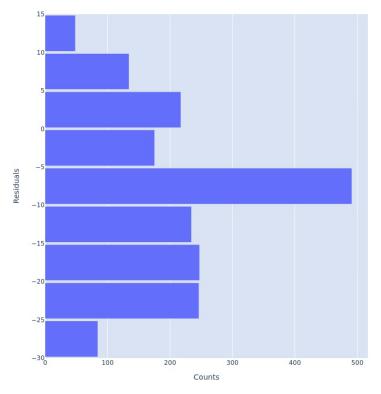
#### R2 score

-1.04 is amount of variation in the predicted values that can be explained by the model inputs.

#### **Distributions**

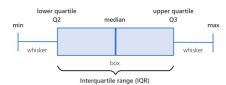


## Histogram of your residuals values (distance squared difference between actual between actual values and predicted values):



Data Explorer

Evaluate your dataset to assess representation of identified cohorts:

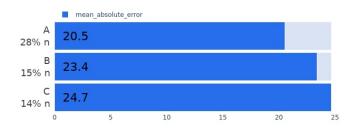


Observe evidence of model performance across your passed cohorts:

# Highest ranked cohorts: mean absolute error

- A: motor UPDRS > 29.90
- B: subject# <= 38.50 AND motor UPDRS > 29.90
- C: Jitter(Abs) <= 0.00 AND subject# <= 38.50 AND motor\_UPDRS > 29.90

## Highest ranked cohorts: mean\_absolute\_error



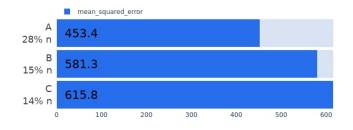
# Highest ranked cohorts: mean squared error

- A: motor UPDRS > 29.90
- B: subject# <= 38.50 AND
- motor\_UPDRS > 29.90
   C: Jitter(Abs) <= 0.00
  AND

subject# <= 38.50 AND

 $motor_UPDRS > 29.90$ 

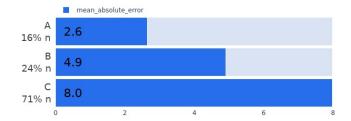
## Highest ranked cohorts: mean\_squared\_error



# Lowest ranked cohorts: mean\_absolute\_error

- A: motor\_UPDRS > 18.37
   AND
   age > 66.50
   AND
   motor\_UPDRS <= 29.90</p>
- B: age > 66.50 AND motor UPDRS <= 29.90
- C: motor UPDRS <= 29.90

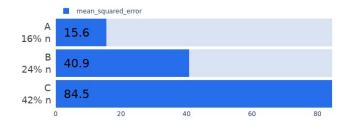
## Lowest ranked cohorts: mean\_absolute\_error



# Lowest ranked cohorts: mean\_squared\_error

- A: motor\_UPDRS > 18.37
   AND
   age > 66.50
   AND
   motor\_UPDRS <= 29.90</p>
- B: age > 66.50 AND motor\_UPDRS <= 29.90
- C: subject# > 31.50 AND age <= 66.50 AND motor\_UPDRS <= 29.90

### Lowest ranked cohorts: mean\_squared\_error



#### Feature Importance (Explainability)

Understand factors that have impacted your model predictions the most. These are factors that may account for performance levels and differences.

- A: HNR
- B: RPDE
- C: DFA
- D: PPE

### **Feature Importance**

Shown below is the mean of SHAP value of the most important features:

