## result visualization

## September 10, 2021

```
[]: import pandas as pd
    import plotly.express as px
[]: centering result = pd.read_csv("analysis/validation_analysis/result/centering.
     ⇔csv")
[]: centering_result.head()
[]:
       Identifier Centering Centering_Ground_Truth
    0 3727258206
                  9.728268
                                             9.0
    1 3790347075 8.881133
                                             9.0
    2 3829836084 8.710790
                                             9.0
    3 3889981070 8.789421
                                             9.5
    4 3769403002
                  9.365221
                                            10.0
[]: centering_result['Diff'] = (centering_result['Centering'] -___
    fig = px.histogram(centering_result, x = 'Diff', title = 'Centering:
     →Differences between prediction and ground-truth values')
    fig.show()
[]: corners result = pd.read_csv("analysis/validation_analysis/result/corners.csv")
[]: corners result.head()
[]:
       Identifier
                  Corners Ground Truth
    0 3779755024 3.404867
                                          3.0
    1 3790347036 7.573063
                                          7.0
    2 3729526026 6.359639
                                          6.5
    3 3750017066 9.086477
                                          9.5
    4 3773489002 3.404867
                                          4.0
[]: corners_result['Diff'] = (corners_result['Corners'] -__
    fig = px.histogram(corners_result, x = 'Diff', title = 'Corners: Differences_L
     →between prediction and ground-truth values')
    fig.show()
```

```
[]: edges_result = pd.read_csv("analysis/validation_analysis/result/edges.csv")
[]: edges_result.head()
[]:
       Identifier
                      Edges Edges_Ground_Truth
    0 3779755122 5.637629
                                            6.0
    1 3761772047 4.274985
                                            4.5
    2 3783187046 9.051152
                                            9.0
    3 3757764123 5.296044
                                            5.5
    4 3817031008 6.221293
                                            6.5
[]: edges_result['Diff'] = (edges_result['Edges'] -__
     →edges_result['Edges_Ground_Truth']).abs()
    fig = px.histogram(edges_result, x = 'Diff', title = 'Edges: Differences_
     ⇒between prediction and ground-truth values')
    fig.show()
[]: surface_result = pd.read_csv("analysis/validation_analysis/result/surface.csv")
[]: surface_result.head()
[]:
       Identifier
                    Surface Surface_Ground_Truth
    0 3834529061 2.298725
                                              1.0
    1 3760202035 6.771133
                                              8.0
    2 3877888008 8.100383
                                              9.0
    3 3857203100 4.342918
                                              4.5
    4 3852955009 6.503569
                                              7.0
[]: surface_result['Diff'] = (surface_result['Surface'] -__

→surface_result['Surface_Ground_Truth']).abs()
    fig = px.histogram(surface_result, x = 'Diff', title = 'Surface: Differences_
     ⇒between prediction and ground-truth values')
    fig.show()
```