viz_fixed_n2v

September 21, 2022

[ ]:
```
import os

import pickle
import pandas as pd
from tabulate import tabulate

import seaborn as sns
import matplotlib.pyplot as plt
%matplotlib inline
```

[ ]:
```
# Build dataframe from records
dir_ = "../tmp_cache/"

data = []
for file_ in os.listdir(dir_):
    with open(f"{dir_}/{file_}", "rb") as fh:
        data_ = pickle.load(fh)
        data.append(data_)

df = pd.DataFrame.from_records(data)
df.to_csv("tmp_df.csv")
```

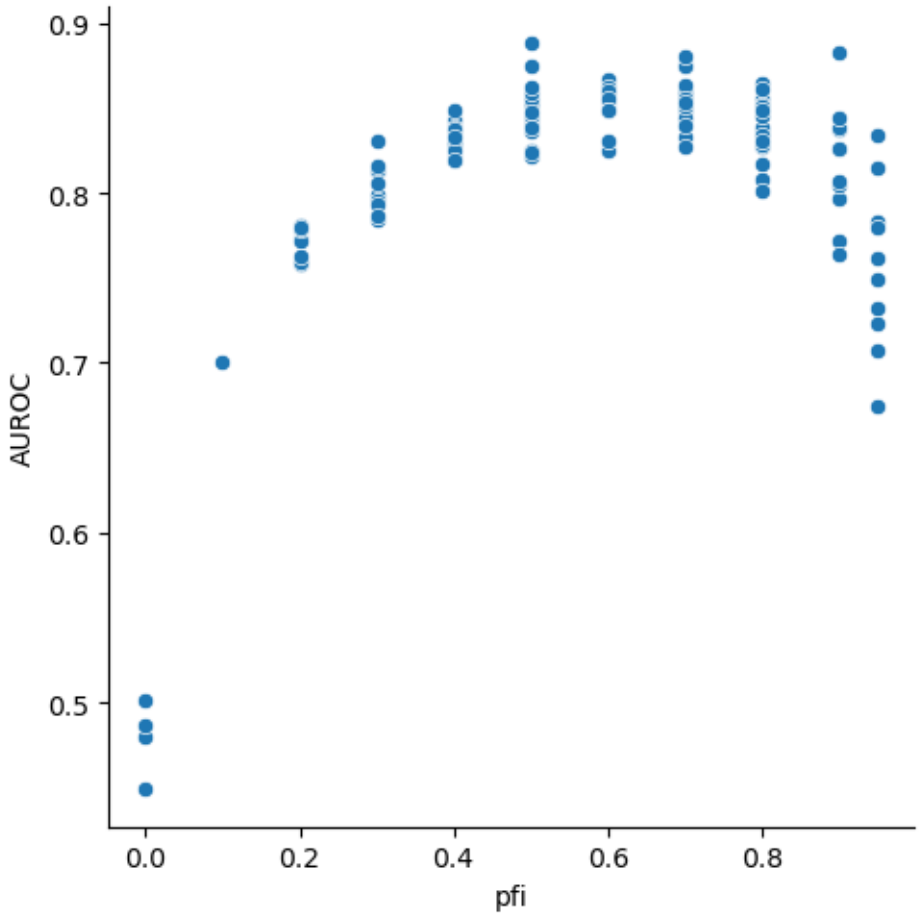
[ ]:
```
# Remove extraneous data
df = df.query("distance != 'logistic'")
df = df.drop(["N", "prob", "rep", "largest_component", "dimensions",␣
 ↪"walk_length", "num_walks", "workers", "window", "min_count", "batch_words",␣
 ↪"kmax", "_time_embedd", "_time_all"], axis="columns")
print(
    tabulate(df.head(), headers="keys", tablefmt="fancy_grid")
)
```

```
        tau1     tau2     avg_k     min_community     mu     pfi   distance
AUROC     Accuracy

  2      2.5        1        12                100   0.75     0.5   inverse
```

```
0.852966     0.540897

   6      2.1        1         5                10   0.3      0.8   negexp
0.836798     0.746951

   7      2.9        1         5                10   0.3      0     inverse
0.479614     0.517438

  10      2.1        1         5                10   0.3      0.6   inverse
0.855903     0.522023

  11      2.9        1         5                10   0.1      0.8   inverse
0.808048     0.531447
```

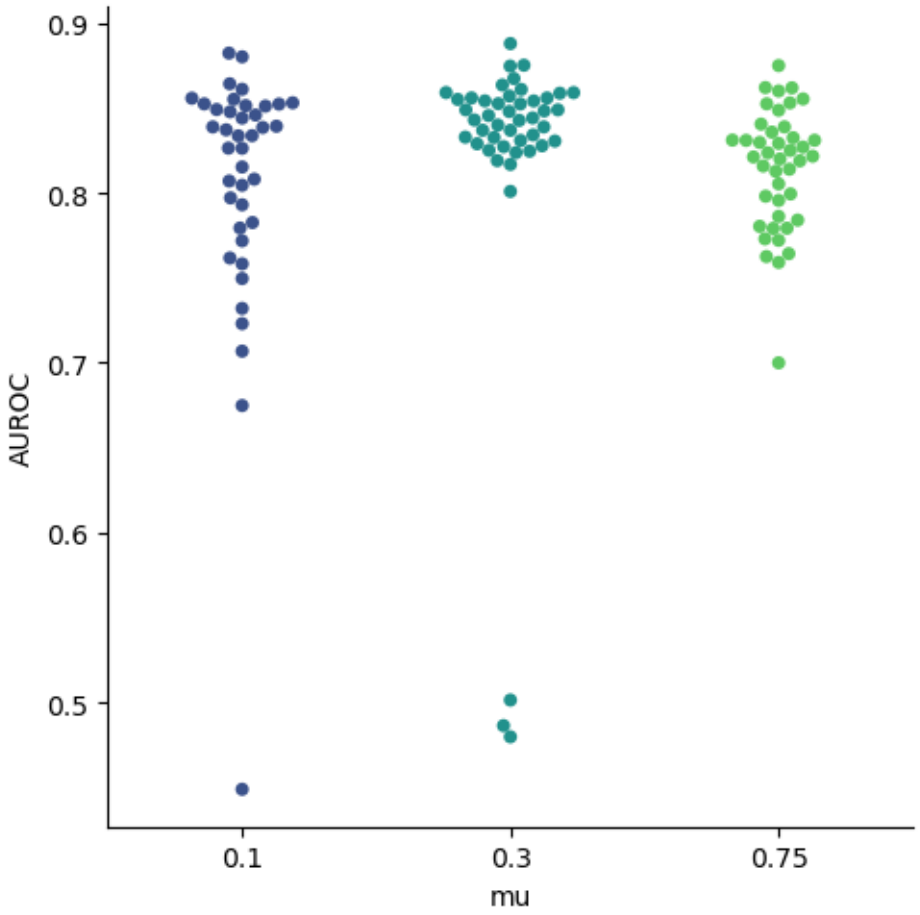
[ ]:
```
plt.figure()
sns.relplot(
    data=df, kind="scatter",
    x="pfi", y="AUROC",
)

plt.savefig("../results/plots/scatter_auroc-pfi_EMB_ex04v4.2_DK_20220921.png",␣
 ↪facecolor="white", transparent=False)
```

```
<Figure size 640x480 with 0 Axes>
```

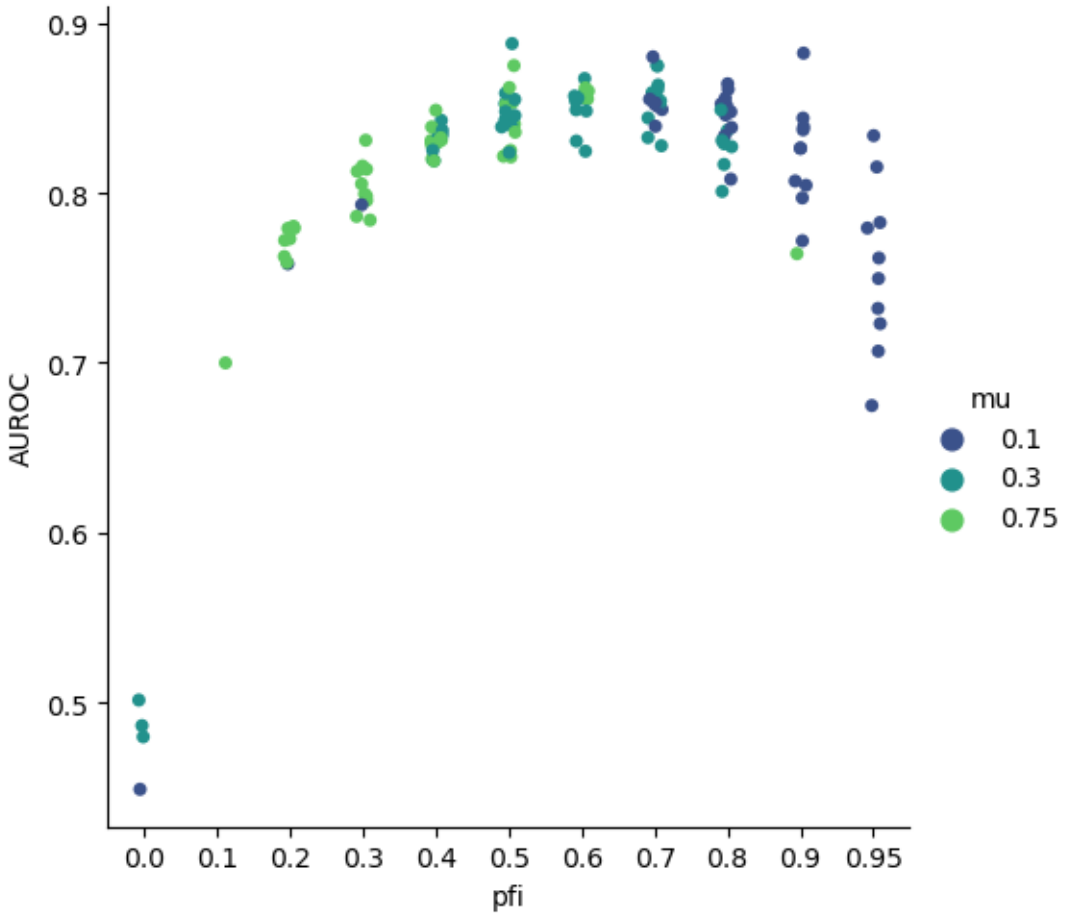


[ ]:
```
plt.figure()
sns.catplot(
    data=df, kind="swarm",
    x="mu", y="AUROC",
    palette="viridis"
)

plt.figure()
sns.catplot(
    data=df, kind="strip",
    x="pfi", y="AUROC",
    hue="mu", palette="viridis"
)
```

[ ]:
```
<seaborn.axisgrid.FacetGrid at 0x7fd0d7685ba0>

<Figure size 640x480 with 0 Axes>
```



<Figure size 640x480 with 0 Axes>


0.9
0.8
0.7
0.6
0.5
AUROC
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
0.95
pfi
mu
0.1
0.3
0.75

[ ]: