Untitled3

September 29, 2022

[1]:

```
import matplotlib.pyplot as plt
import seaborn as sns
import networkx as nx
```

[2]:

```
# nx.random_regular_graph(k, N)
import networkx.generators.random_graphs as rnd_graphs
# rnd_graph.erdos_renyi_graph(N, p)
# rnd_graph.watts_strogatz_graph(N, k, p)
# rnd_graph.barabasi_albert_graph(N, m0)
```

[8]:

```
N = 1000
k = 4
G_regular_random = nx.random_regular_graph(k, N)
```

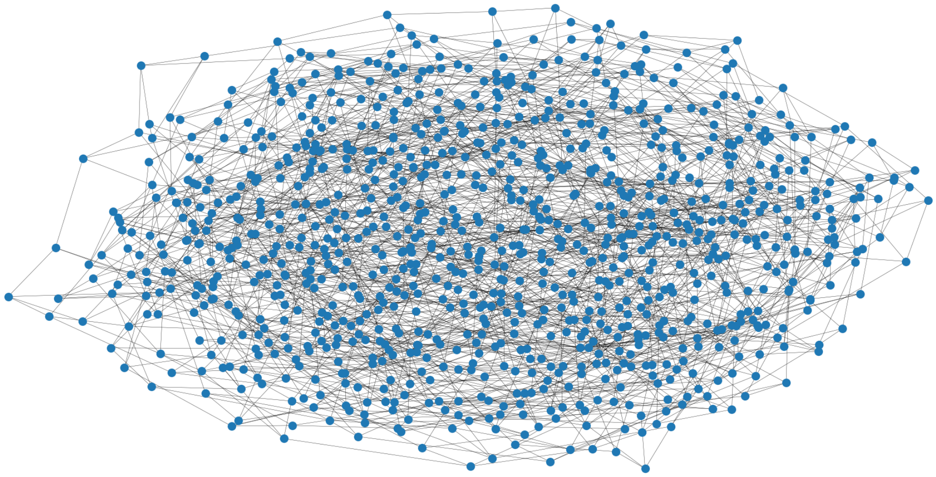
[15]:

```
plt.figure(figsize=(20,10), dpi=100)
positioning = nx.spring_layout(G_regular_random)
nx.draw(G_regular_random, node_size=100, pos=positioning, width=0.3)

a = [i[1] for i in list(nx.degree(G_regular_random))]
# or use
# a = nx.degree(G_regular_random).values()

plt.figure(figsize=(20, 10), dpi=100)
# for logarithmic scales:
plt.xscale("log")
plt.yscale("log")

sns.distplot(a, kde=False)
```



[22]:

```
a = [i[1] for i in list(nx.degree(G_regular_random))]
# or use
# a = nx.degree(G_regular_random).values()

plt.figure(figsize=(20, 10), dpi=100)
# for logarithmic scales:
plt.xscale("log")
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sns.distplot(a, kde=False)
```
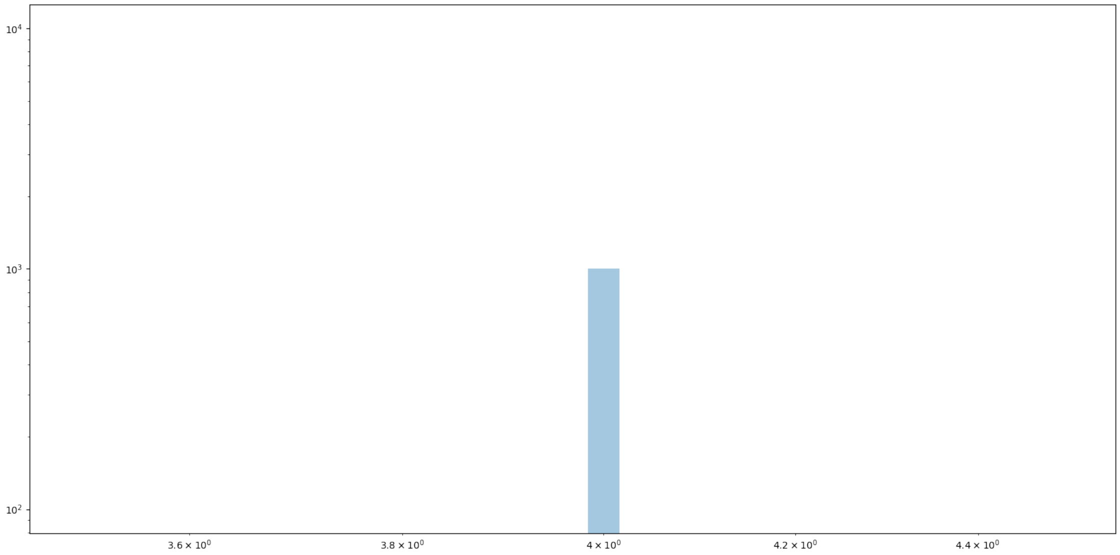

[22]:

```
<AxesSubplot:>
```



```
[ ]:
```