Note

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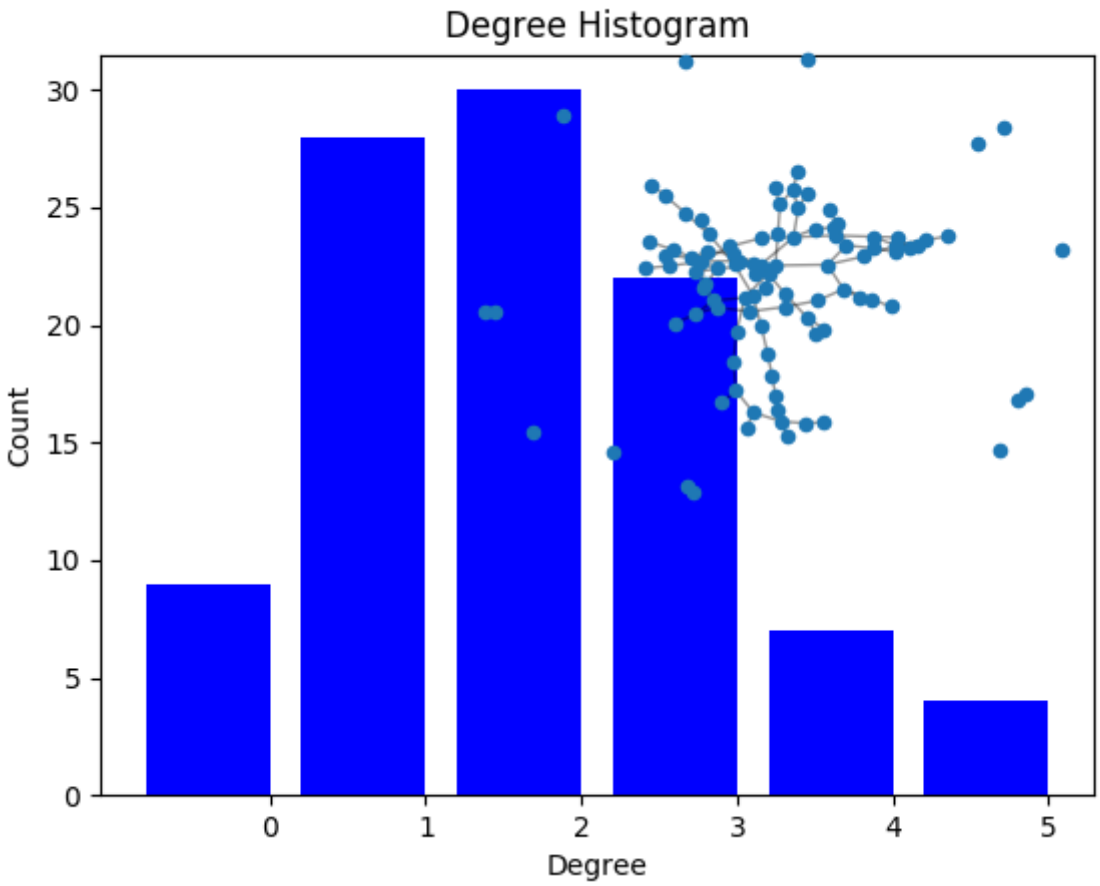
Degree histogram

Draw degree histogram with matplotlib. Random graph shown as inset



```
import collections
import matplotlib.pyplot as plt
import networkx as nx

G = nx.gnp_random_graph(100, 0.02)

degree_sequence = sorted([d for n, d in G.degree()], reverse=True)  # degree sequence
# print "Degree sequence", degree_sequence
degreeCount = collections.Counter(degree_sequence)
deg, cnt = zip(*degreeCount.items())

fig, ax = plt.subplots()
plt.bar(deg, cnt, width=0.80, color='b')

plt.title("Degree Histogram")
plt.ylabel("Count")
plt.xlabel("Degree")
ax.set_xticks([d + 0.4 for d in deg])
ax.set_xticklabels(deg)

# draw graph in inset
plt.axes([0.4, 0.4, 0.5, 0.5])
Gcc = sorted(nx.connected_component_subgraphs(G), key=len, reverse=True)[0]
pos = nx.spring_layout(G)
plt.axis('off')
nx.draw_networkx_nodes(G, pos, node_size=20)
nx.draw_networkx_edges(G, pos, alpha=0.4)

plt.show()
```

Total running time of the script: (0 minutes 0.202 seconds)

Download Python source code: plot_degree_histogram.py

Download Jupyter notebook: plot_degree_histogram.ipynb