

```

1  from heapq import heappop, heappush
2  from profiler import profile
3
4  @profile
5  def hoffman_pavley(G, source, target, k, weightLabel='length'):
6      k_shortest_paths = []
7      paths = [(0, [source])]
8      while paths and len(k_shortest_paths) < k:
9          cost, path = heappop(paths)
10         node = path[-1]
11         if node == target:
12             k_shortest_paths.append((cost, path))
13         else:
14             for neighbor in G.neighbors(node):
15                 if neighbor not in path:
16                     new_cost = cost + G[node][neighbor][0][weightLabel]
17                     new_path = path + [neighbor]
18                     heappush(paths, (new_cost, new_path))
19     return k_shortest_paths

```