Network Science Project

Tshifaro Justin Ndivhuwo (SUQGJ)

Graph Data Science with Python/NetworkX

We are surrounded by data like never before, how can we ever hope to analyze it? An elegant method is to use graphs (networks, not bar graphs). In this project, I'll show you how to describe, display, and analyze "graph theory" datasets using the Python NetworkX package.

Tables are frequently used to represent data in a general way. However, graphs employ a unique data structure: An element is represented by a node rather than a table row. Two nodes are connected by an edge to show their relationship.

Every sector, from molecular biology to the social sciences, uses graph data science because it allows us to view data from novel perspectives

Python programmers have access to several graph data packages, including NetworkX, igraph, SNAP, and graph-tool. Despite their differences in pros and downsides, they offer similar handling and processing interfaces for Python graph data structures. I'll be utilizing the NetworkX Python Library for this project.

For this project, Star Wars: Episode IV Dataset was used.

Please Open the attached File to view the results or use the link below.

Here is the GitHub link to view the results:
https://github.com/justin9503/NetworkScience