

# RAAN CASE STUDY

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# Content:

- networkvisualization.ipynb
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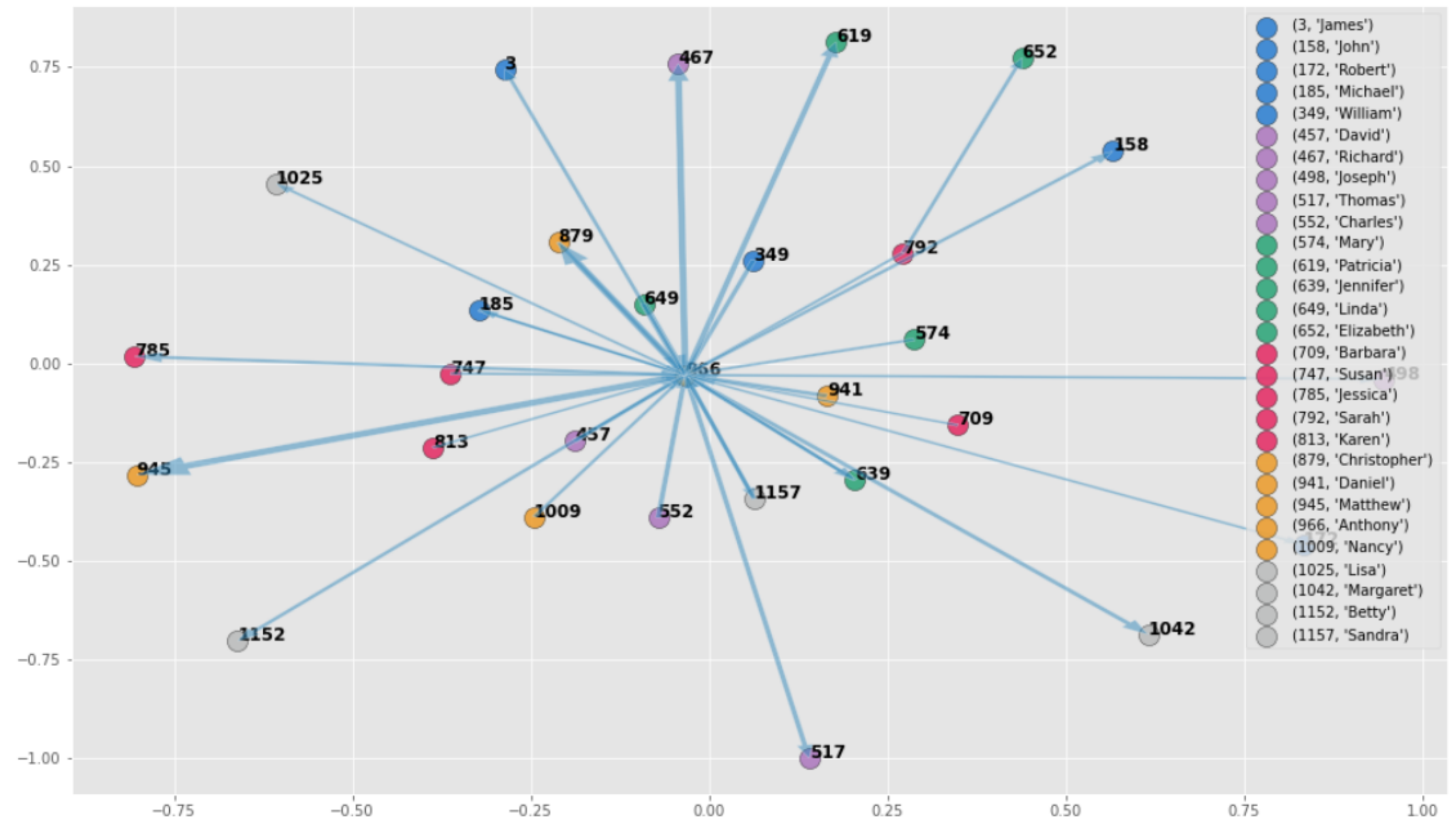


visit my github repo: <https://github.com/lorenzomauri17/NetworkVisualizer>

# networkvisualization.ipynb

## 2D visualization

- chart: matplotlib
- graph: networkx

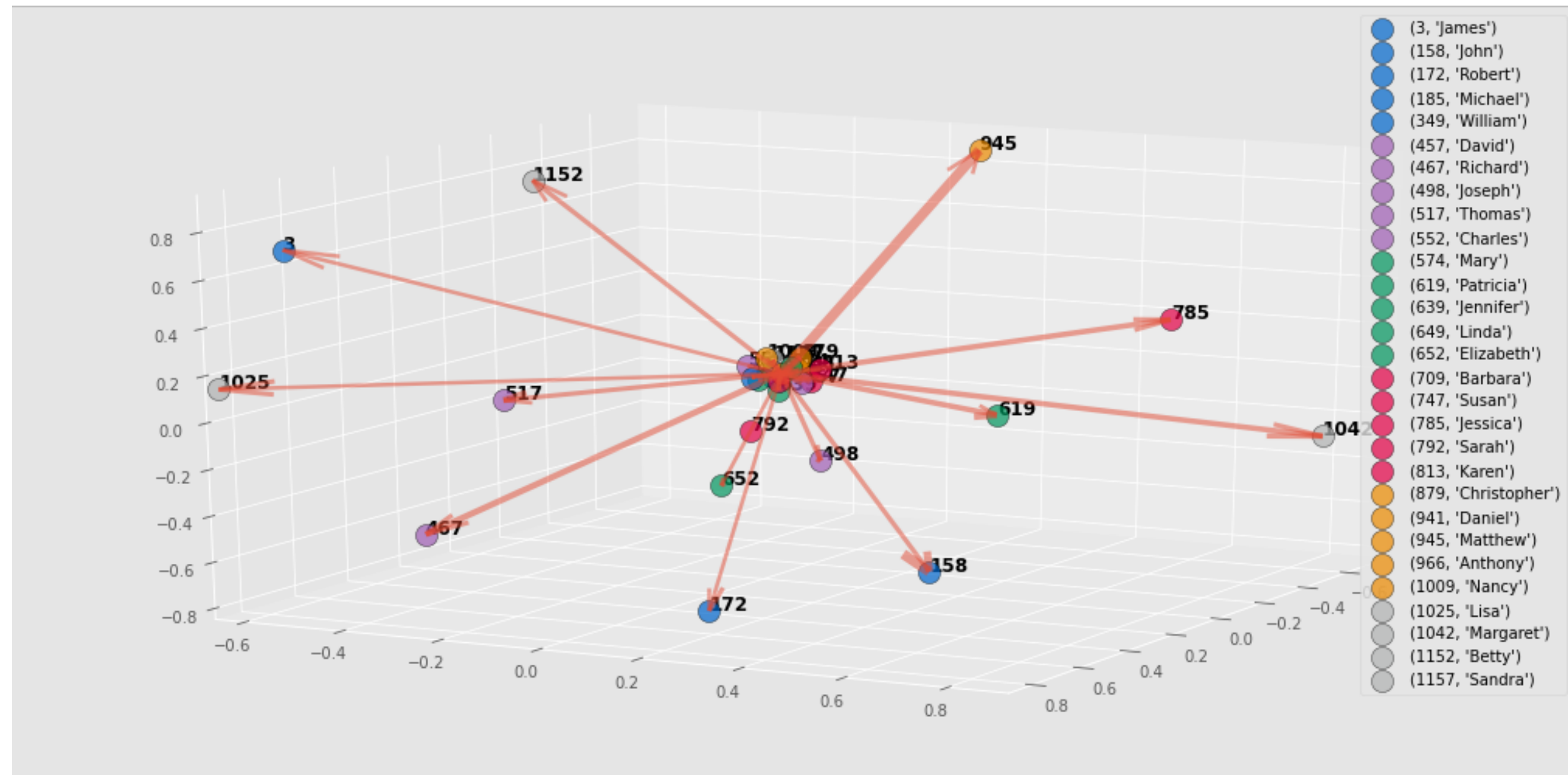


for the 2D chart the value of the optimal distance between nodes (parameter k in nx.layout.spring\_layout ) manually increased for ease of visualization

# networkvisualization.ipynb

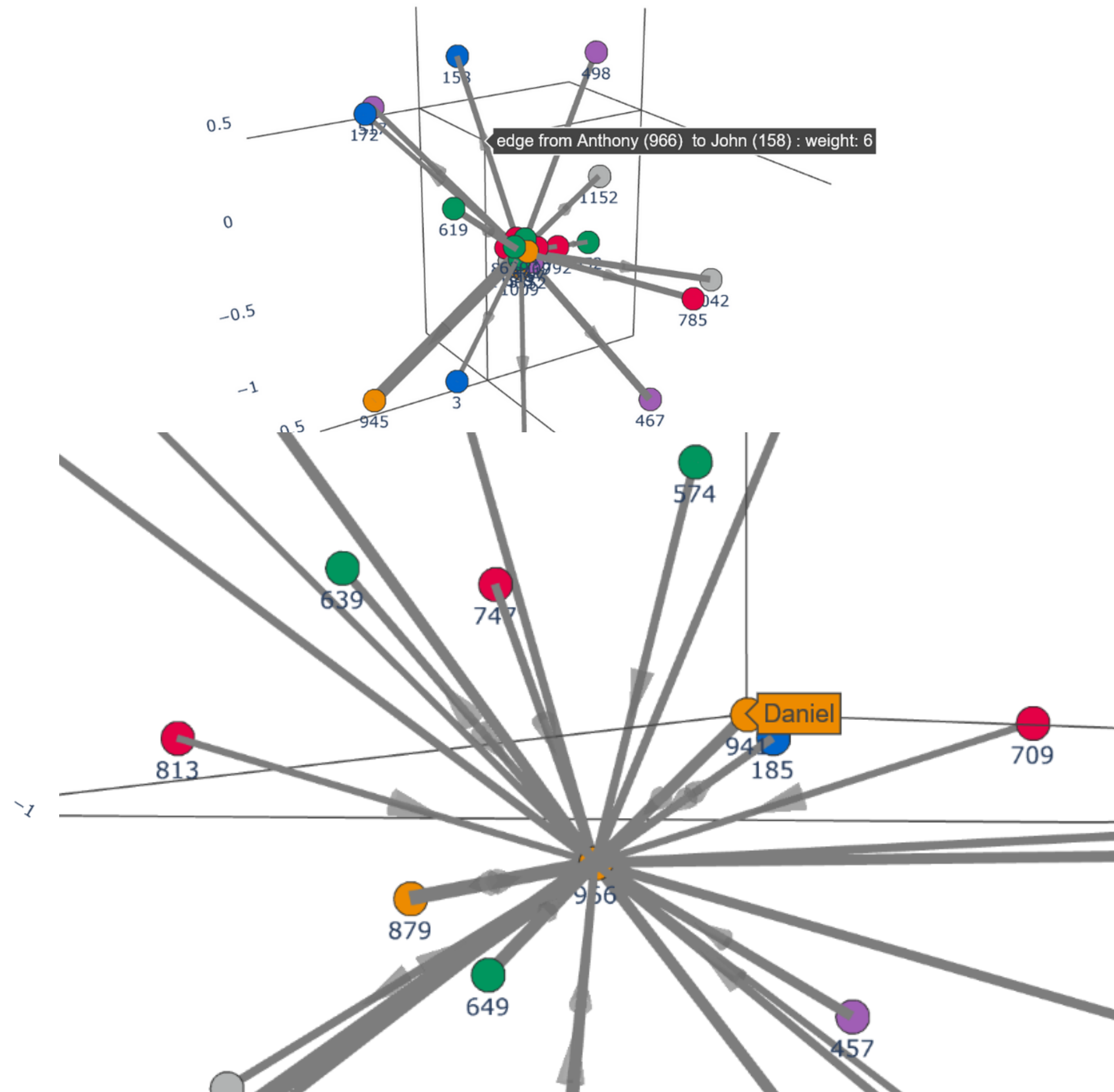
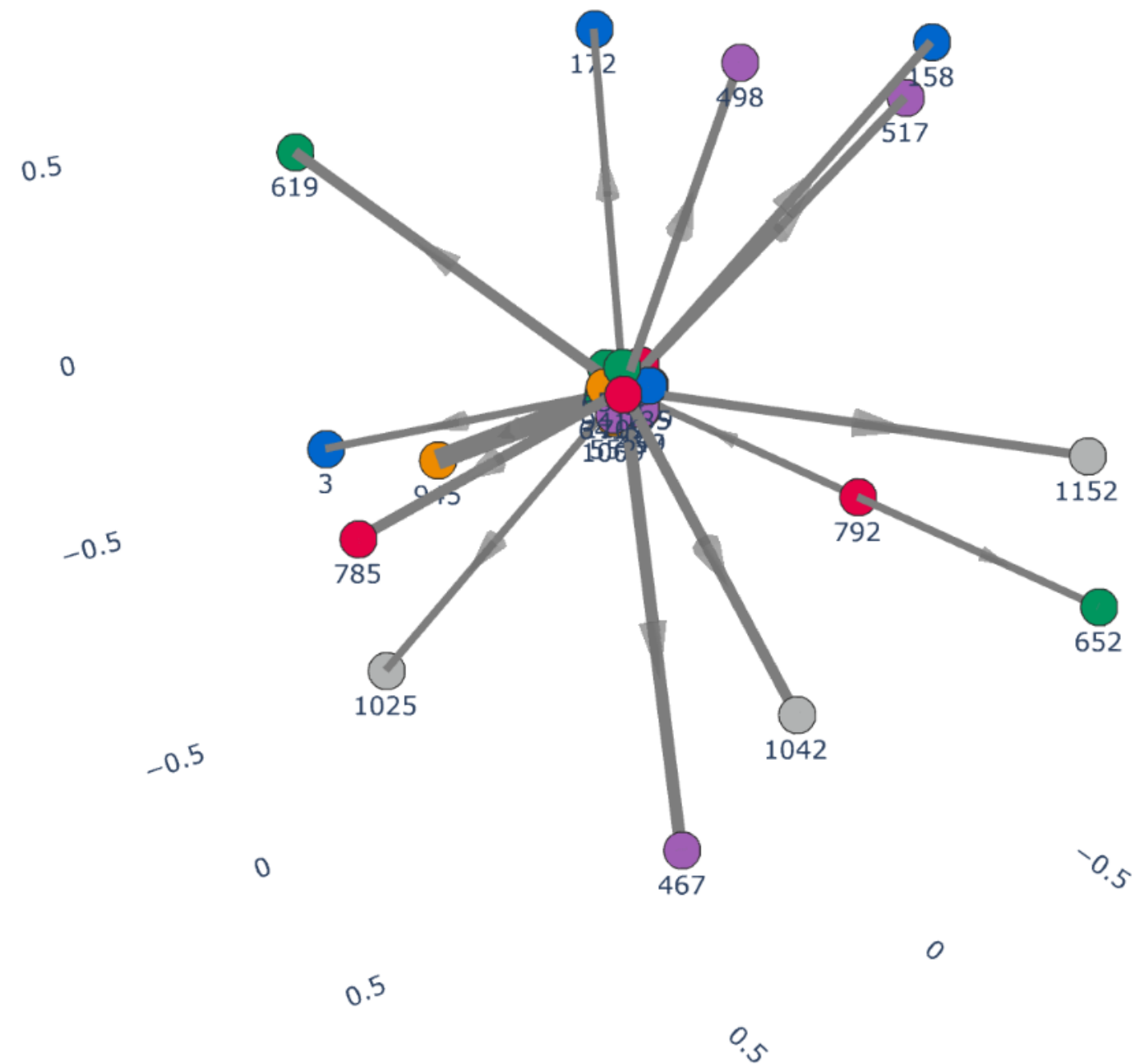
## 3D visualization

- chart: matplotlib
- graph: networkx



for the 3D charts the value of the optimal distance between nodes (parameter `k` in `nx.layout.spring_layout`) kept to its default value  $1/\sqrt{N}$

# 3d with plotly



for the 3D charts the value of the optimal distance between nodes (parameter `k` in `nx.layout.spring_layout` ) kept to its default value  $1/\sqrt{N}$

# app.py

- home page
  - 2d chart (observablehq.com)
  - 3d chart (plotly)

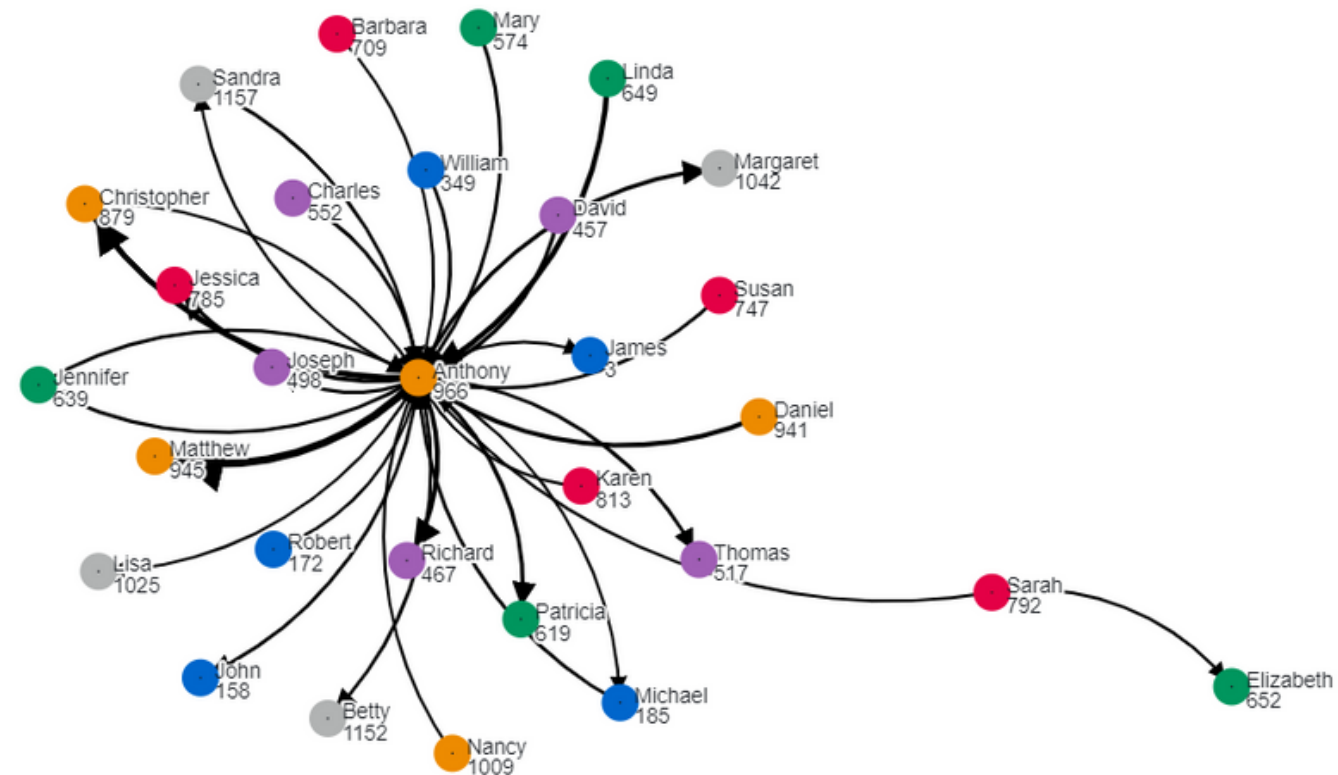
click on one of the buttons for  
the preferred visualization

2D Chart

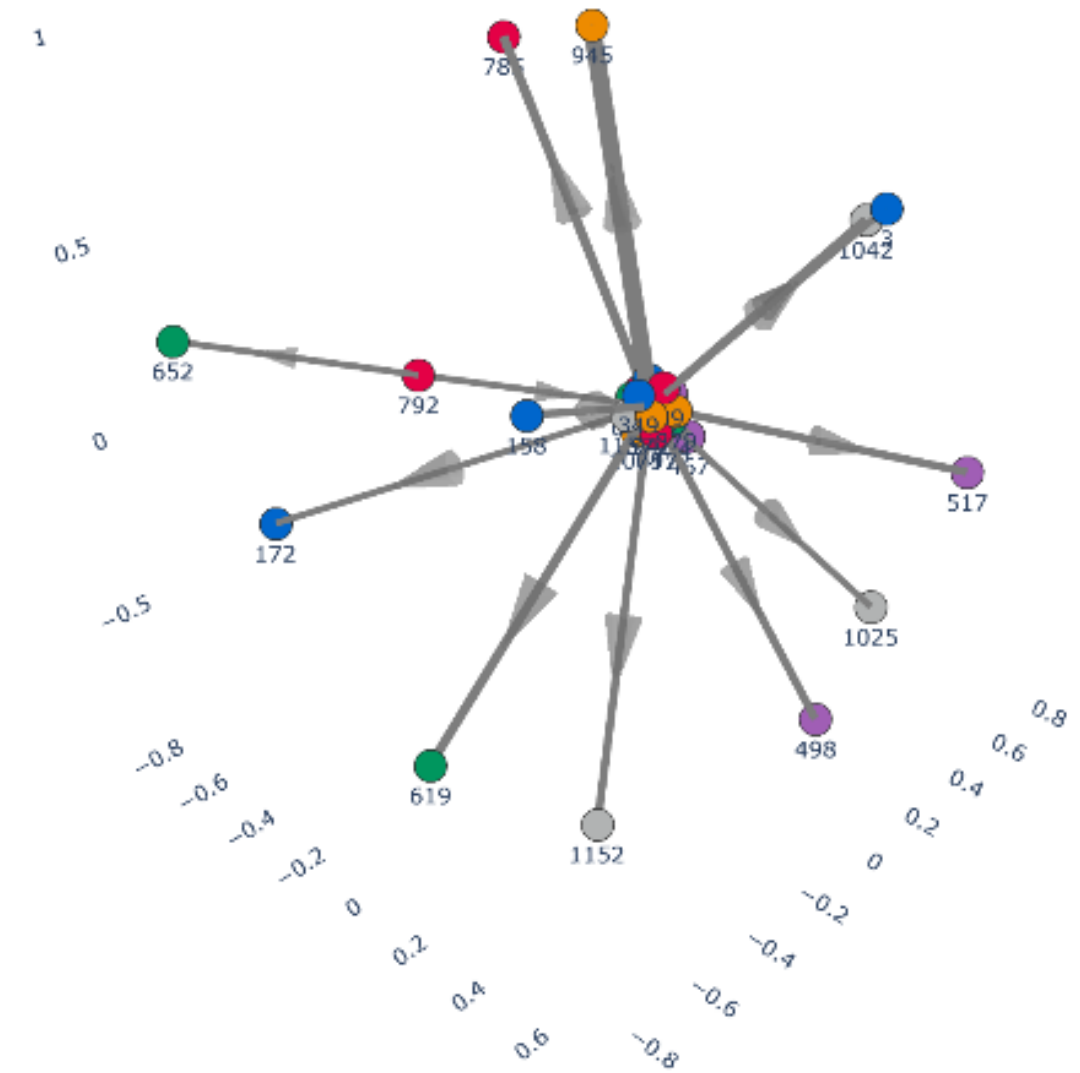
3D Chart

- running app.py the app runs locally
- app deployed online: visit <http://maurilo.pythonanywhere.com/>

# 2D



# 3D



**THANK YOU!**