Data science Assignment-3

MAPPING OUR BOARD-DIRECTOR NETWORK

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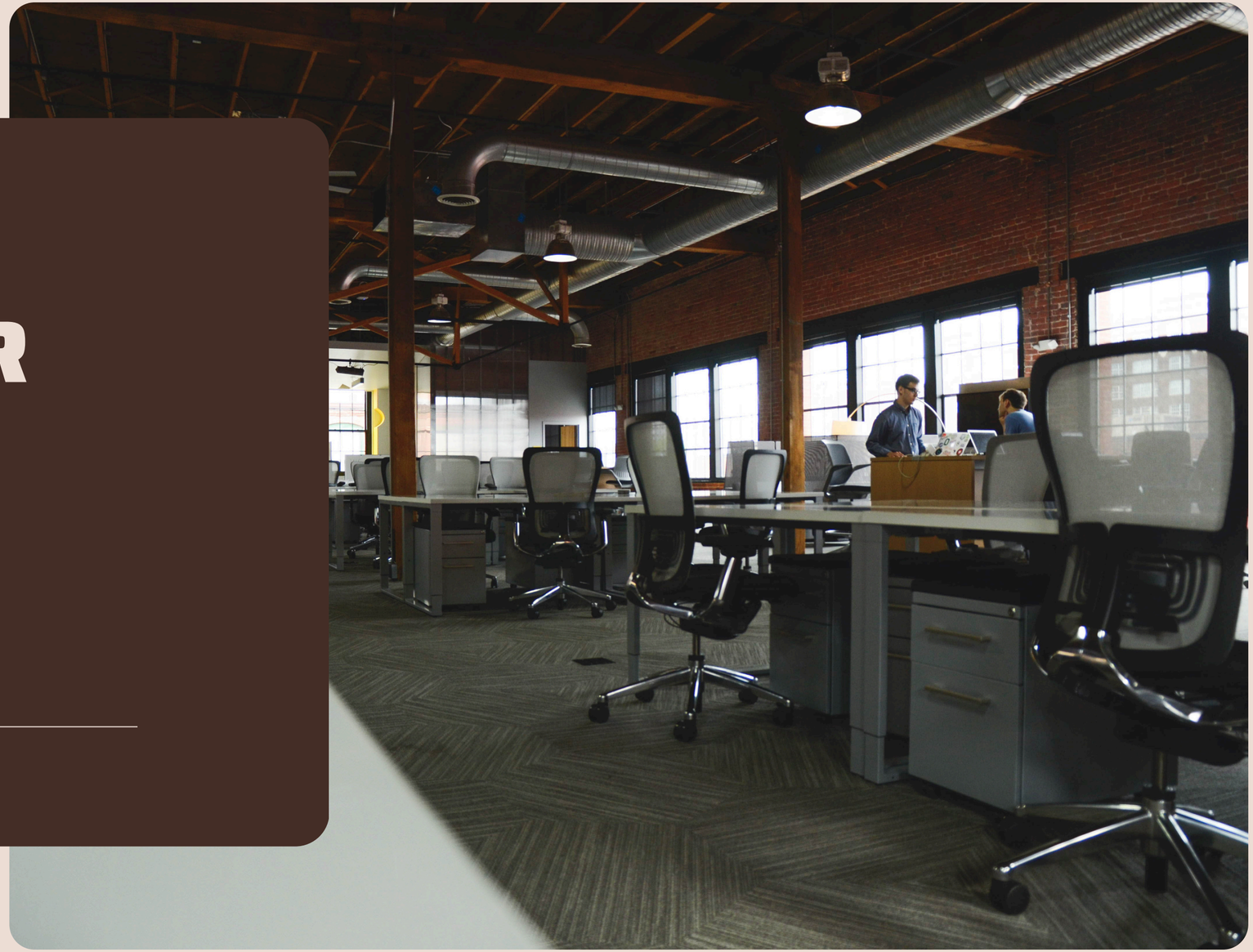
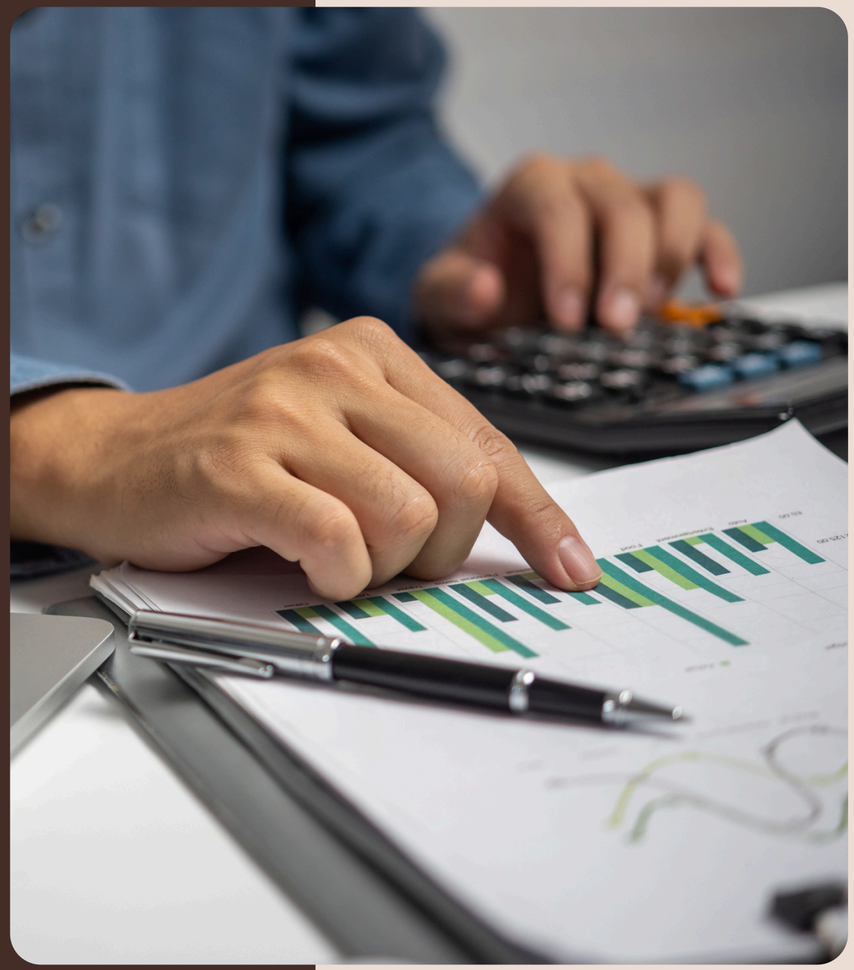


How Many Boards Do Our Directors Sit On?



Before:

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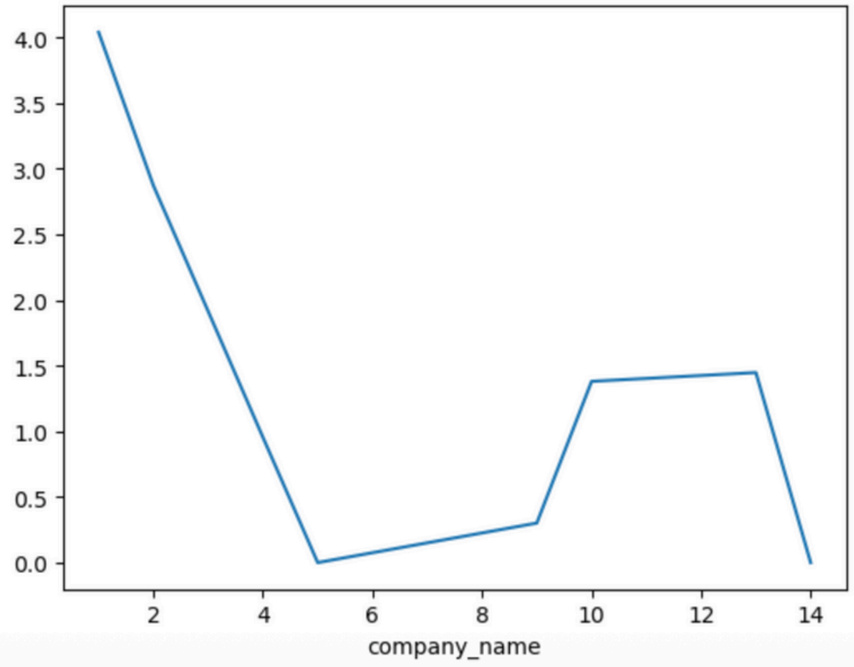
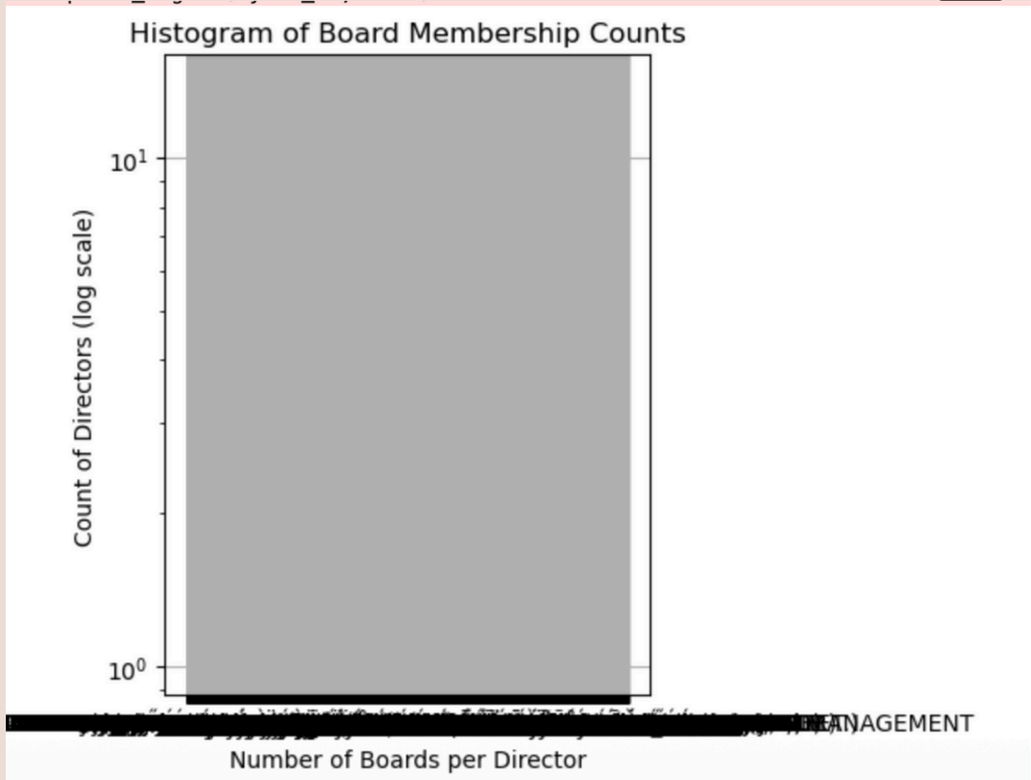
[11]: directorship_counts.value_counts().sort_index().map(math.log10).plot()
[11]: <Axes: xlabel='company_name'>
```



After:



Both plots drive home the same story: the vast majority of directors sit on just one or two boards, the number of directors falls off sharply as board-count rises, and then—on a log scale—you even see a little bump around ten-plus boards. In other words, almost everyone has only a few directorships, but a tiny handful of “super-connectors” hold seats on many companies

Graph Enhancements

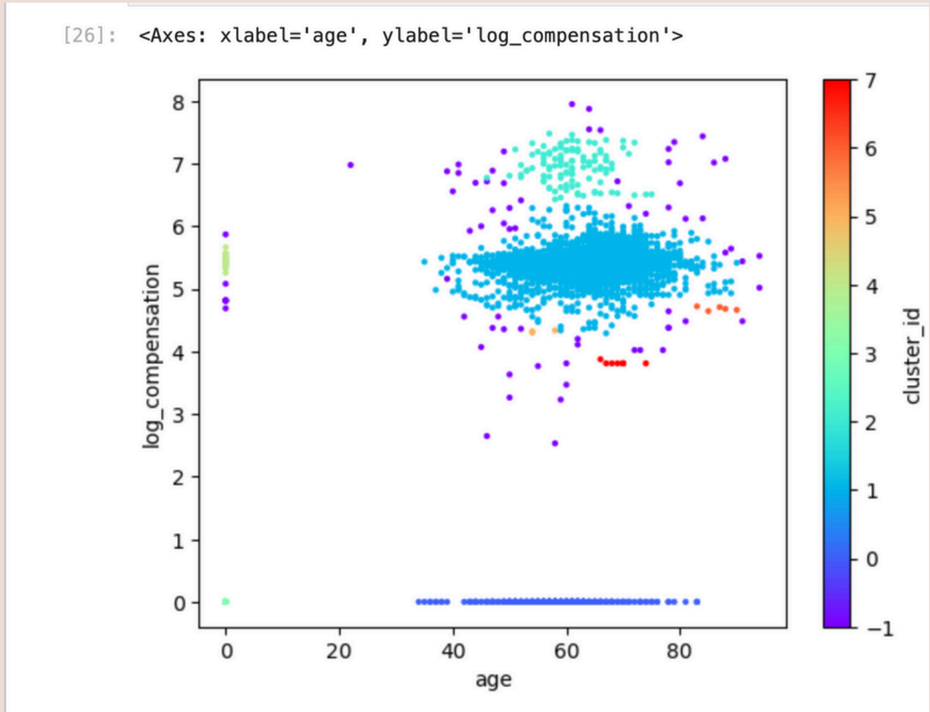
Before:

- a thin line-chart of log-transformed counts that was hard to read.

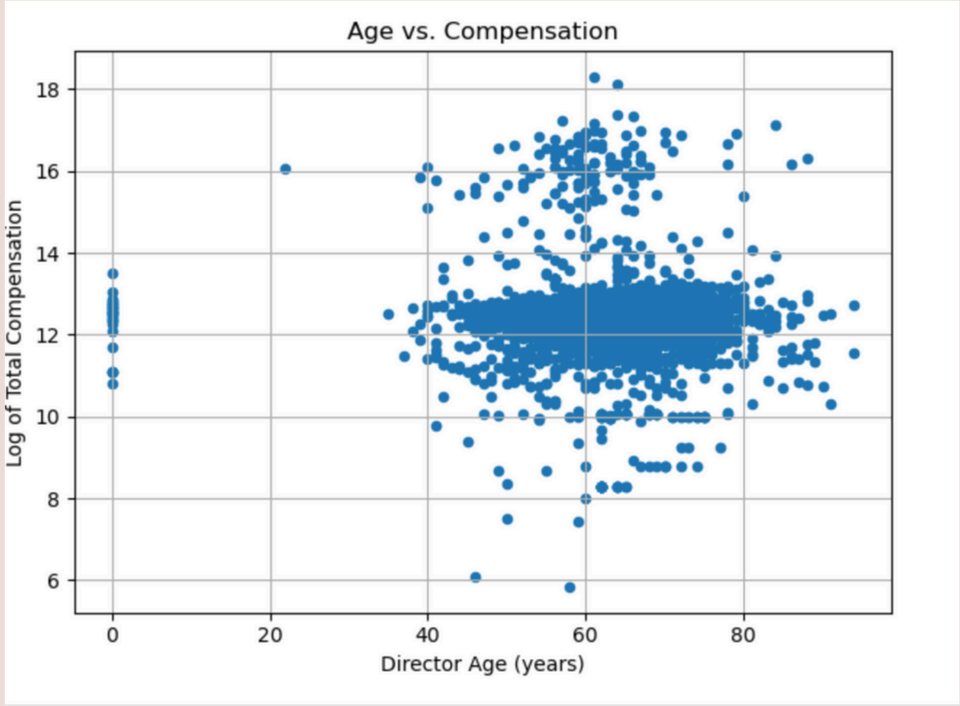
After:

- Switched to a bar chart so each integer on the x-axis is clear
- Applied a log scale on the y-axis (and labeled it) so large and small counts coexist legibly.
- Better labels & grid make the chart self-explanatory at a glance.

AGE VS. COMPENSATION— WHO STANDS OUT?



Before: tiny, rainbow-coloured dots with no axes labels.aragraph text



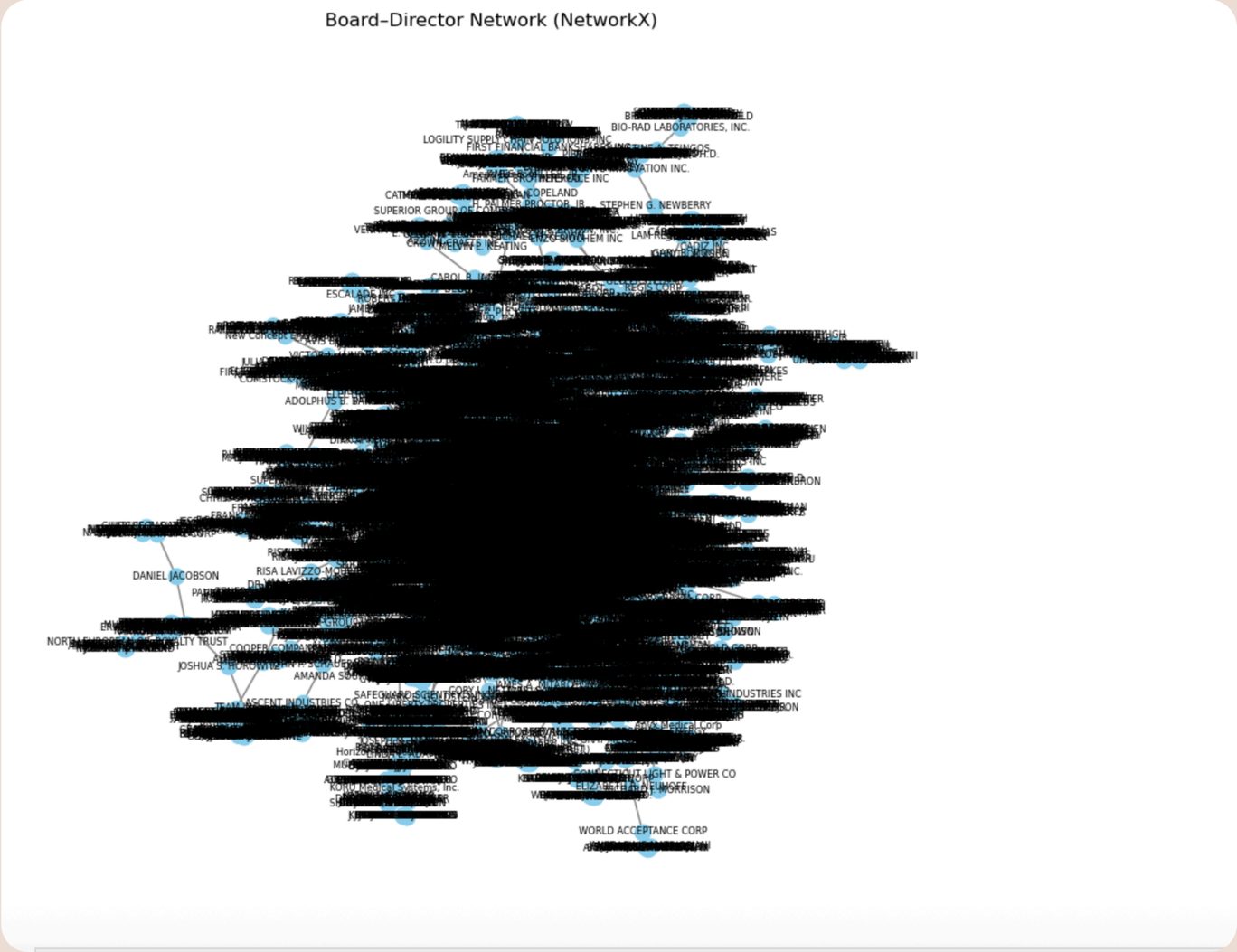
After:

- Larger markers (s=20) for visibility in a presentation.
- Switched to plain Matplotlib so we control colours, fonts, and grid.
- Added axis labels, a title, and a colorbar so everyone knows what each dimension represents.

“Who’s at the Heart of the Network?”

Key Improvements:

- Fixed layout for consistency (spring layout with a seed).
- Node size scaled by degree centrality so the busiest players jump out.
- Light edges (α=0.2) to reveal the network’s structure without clutter.
- Labels only on the top 5 eigenvector-centrality directors—keeps the slide focused



Conclusion

Conclusion & Key Takeaways

- We’ve mapped our entire board-director network, revealing who sits at the center of influence (degree & eigenvector highlights).
- Our top “super-connectors” emerged clearly in the network diagram—those directors whose many direct ties make them natural amplifiers of any message.
- Bridge roles matter: by scaling node size and isolating the biggest connected component, we saw exactly who spans different board communities—our best brokers for fast introductions.
- Actionable shortlist: armed with these insights, the VC team can now confidently reach out to a handful of highly connected, bridge-acting directors to accelerate the sale process.

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