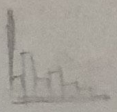
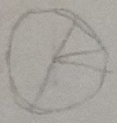
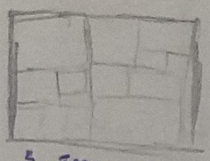
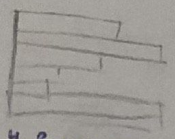
PA: 1 Brainstorm
Daniel Estrabaie
18/09/2025

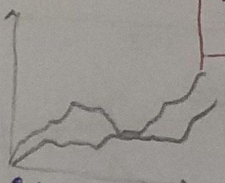
1 Brain Storm

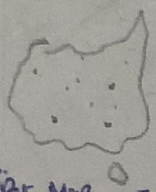

1. bar chart

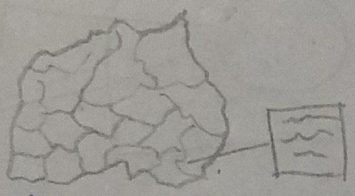

2. Pie chart

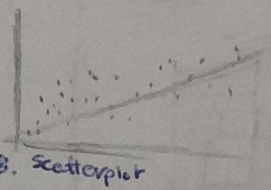

3. Treemap

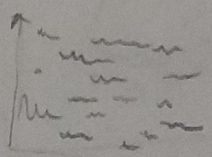

4. Bar chart

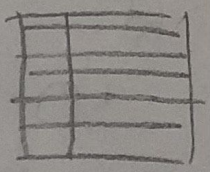

5. line Graph

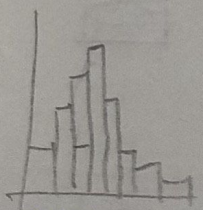

6. Dot Map

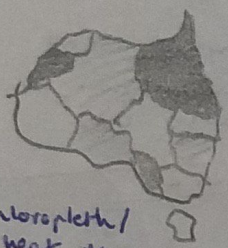

7. Choropleth map with tooltips

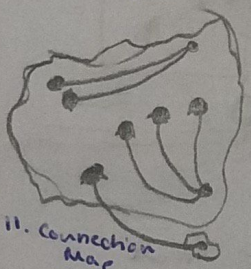

8. Scatterplot

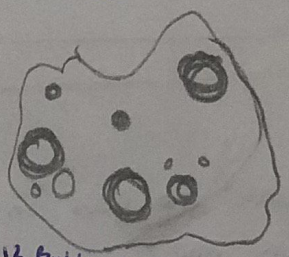

9. word cloud

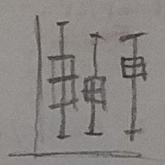

15. Freq Table


14. Histogram


10. choropleth/ heat Map


11. Connection Map


12. Bubble Map


13. Boxplot

2 Filter

Remove:

1. Connection map (11)
2. ~~word cloud~~
   Dot Map (6)
   Bar chart (1)
   scatterplot (8)

3. Categorise

Geospatial:
7 + 10 } for positional data

Quantitative:
5 + 12 + 10 } For numeric data

Categorical:
2 + 4 } For nominal data

Hierarchical:
3 for class-tiered data

Combine & Refine

7+10: Choropleth → Positional Data
heat / shade → Numeric Attribute ie. business ~~count~~ count

12+2/4: ~~Choropleth~~ Map → Position
Bubble size → Numeric Attr.
Pie / bar chart → categorical + numeric.

8 + 7+10 + 4:
Choropleth → Position
scatterplot → distribution/correlation
heat/shade → Numeric Attr.
Bar → categorical Attr. + numeric.

Question:

What?
Data presented showcases data science job listings on same axis as business data.

Why?
Compares ~~job~~ data science job prevalence with business data, highlighting correlation ~~correlations~~ and patterns.

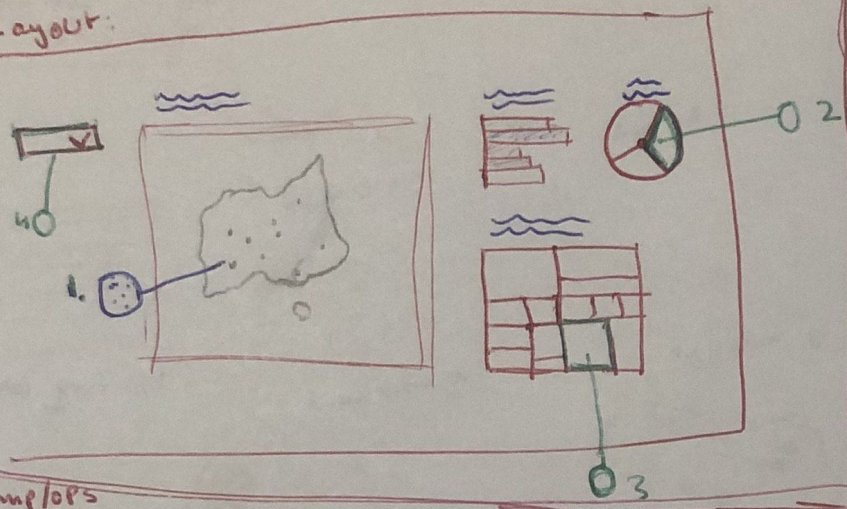
Who?
This is useful for people seeking to understand where data science jobs are prevalent and how it relates to wider business data.

2.

Focus

Pg. 2 Design Sheet
Daniel Istrateanie
18/09/2025

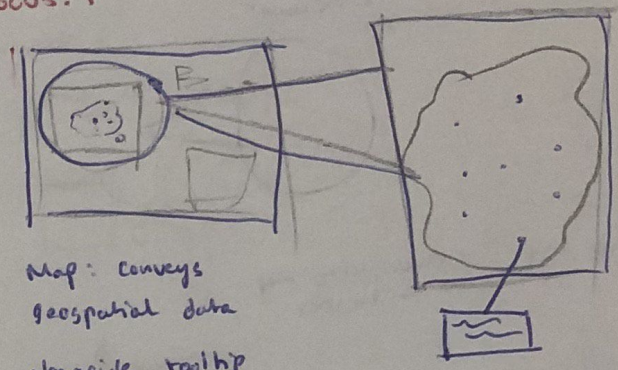
Layout:



Comp/ops ~~Focus~~:

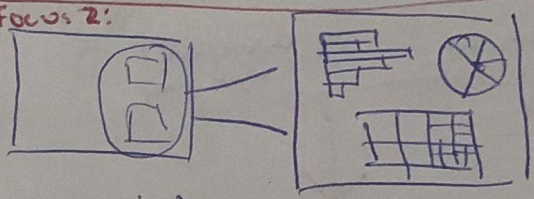
1. Hover/click to focus on /zoom on small area on map.
2. select pie category to isolate entries
3. select Tree Map to isolate category
4. Dropdown menu for some filter (i.e. state)

Focus 1:



Map: conveys geospatial data alongside tooltip information for each dot.

Focus 2:



categorical component. classifies groupings of data for additional context/insights.

Pros:

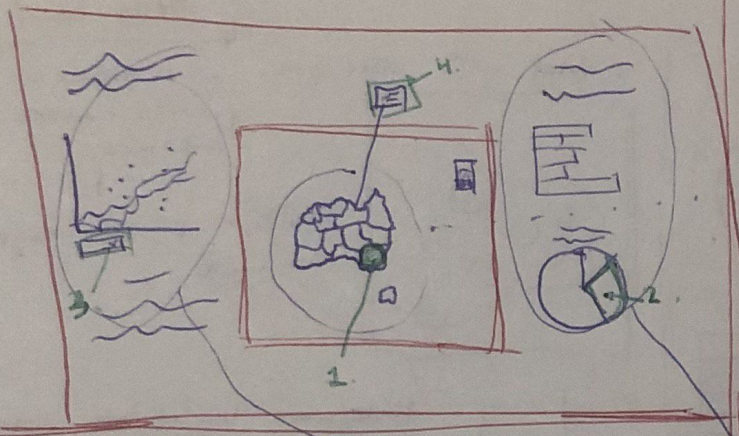
- Combines benefits of ~~spec~~ positional segregation with that of tooltips to maximise information.
- Uses categorical data for easier discernment.
- enhances relationships between datasets via common attribute: (position).

Cons:

- Dots are easy to spot but not used to present information like a visual channel would.
- There is too much categorical data preventing analysis of trends/ patterns.

PCW 3 Design Sheet
Daniel Istratoaie
18/09/2025

Layout:



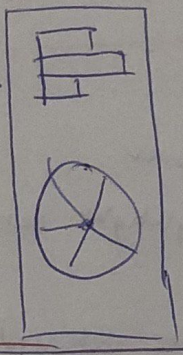
Focus:

* simplifies + aggregates data.

Choropleth + Numeric segments map by grouping into larger territories with generalised attributes and data.

operations

1. Region select.
2. Category select.
3. variable select: swap between attributes to compare distributions.
4. Tooltips.



Categorical component for additional insights

Numeric component for trends/correlations

Pros:

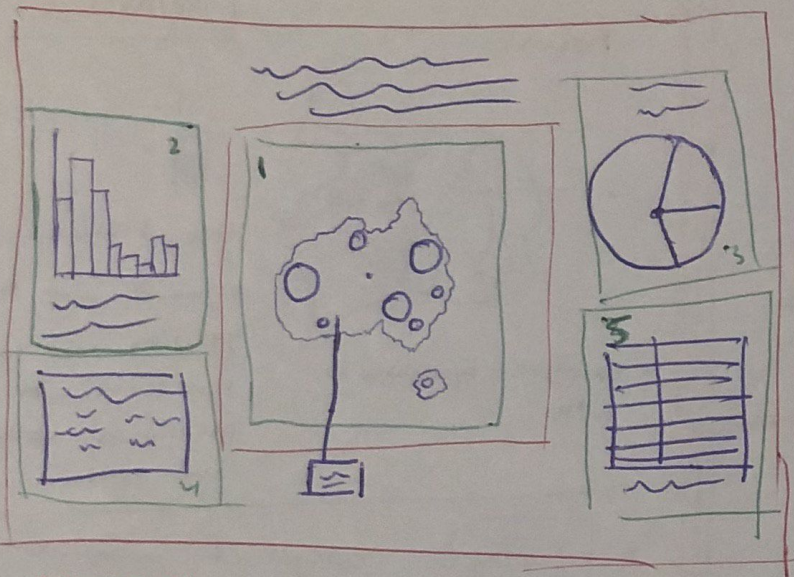
- simplified via grouping
- additional information captured by map visual channels (ie. shade)
- Numeric data included over just categorical

Cons:

- less specific due to grouping
- more obscure

PCW 4. Design Sheet
Daniel Istrate
19/01/2025

Layout:



OPERATIONS:

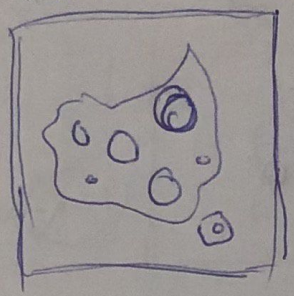
Tooltips: on click/hover over

Data select: click to highlight data across all graphs.

Map zoom: To see more detailed data.

Focus:

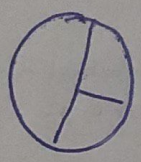
1. Map with sized spots: more precise + provides numeric measure



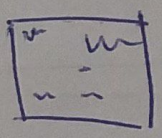
Tooltips provide insights as well.

2. 

Histogram highlights distribution of some data

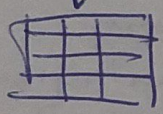
3. 

Pie chart categorises and shows proportions.

4. 

Word cloud displays words and some numeric attribute. ie. count.

5. Freq table provides explicit numberings of some data.



Pros:

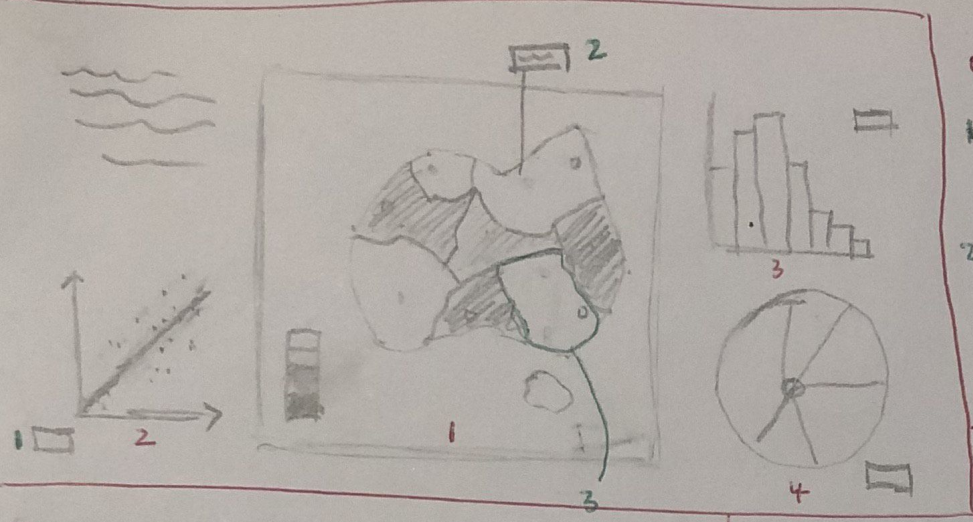
- Good variety of numeric and categorical data
- Spatial data is more precise
- Comparable visuals
- More data visualisations

Cons:

- Less readable + more complex
- More noise

PCa 5. Realization
Daniel Estratoaie
18/09/2025

Layout



Operations:

1. Variable select dropdowns for comparing/isolating features.
2. Tooltips: extra details
3. Region/feature selection, focuses on selected component.

Focus

1. Map with region boundaries and shade indicating numeric attribute.
2. Scatterplot with 2 variables and trend line.
3. Histogram showing distribution of some variable
4. Pie chart highlighting categorisation

Details.

1. Use datasets from Australian Atlas and ABS.
2. Parse data and clean empty vals.
3. Identify columns to be visualised.
4. Use vegalite + html to create visualisations,

Dependencies: ai: ie copilot/claude ..., Vs code
Estimate Time: 2-3 days
Specific Reqs: - competent computer
- time allocation
- lecture slides/content.