

Iterative Quantification of Categorical Criteria for Enhanced Job Seeking



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Introduction:

- Many decision making tools use the Weighted Sum Method (WSM) to rank options by weighted criteria and numerical values.
- Real-world decisions, such as purchasing a house or seeking employment, also involve qualitative criteria like neighbourhood desirability or company culture.
- How can we integrate and evaluate these qualitative criteria within decision rankings?

	Quantitative Criteria (normalized to 0-1)			Qualitative Criteria	WSM Score
	Price	Commute Time	Space	Home Type (Single-family home, condo, townhome)	
Weighting	0.45	0.2	0.1	0.25	-
House A	0.8	0.4	0.4	?	?
House B	0.6	0.7	0.2	?	?
House C	0.4	0.6	0.5	?	?

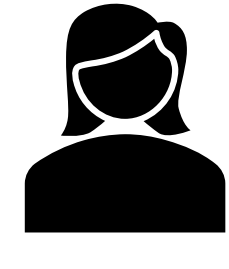
We cannot calculate weighted sums because there are no scores for the levels of qualitative criterion.

What do job-seekers say about their decision process?

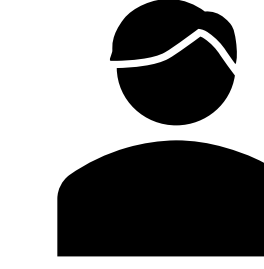


"I would look location. Another was the years of experience that required. I would also look what's the values of the company."

➔ Richness and diversity of criteria including qualitative ones.



"I don't think I would want the decisions that sort of made automatically for me because you want to have that control."



"I use mostly LinkedIn and searching. I also write down all jobs in Google Sheet to track them."

Highly data-oriented and interactive needs, but only list-based or basic tabular formats to support them

"Quantifying" job flexibility

STEP 1. Slide the dots horizontally to assign a score to different levels of flexibility

Flexibility

Use this tool to convert your categorical preferences into a numeric score. By adjusting the markers, you can rank items based on your priorities. The numerical score provides a clear representation of your preferences.

Apply Your Preference

Drag the dots in the visualization to adjust the scores.

Least Preferred — On Site — 50 — Hybrid — Remote — Most Preferred

Table

In this table you can see the current scores.

Item	Score
	50
	71
	10

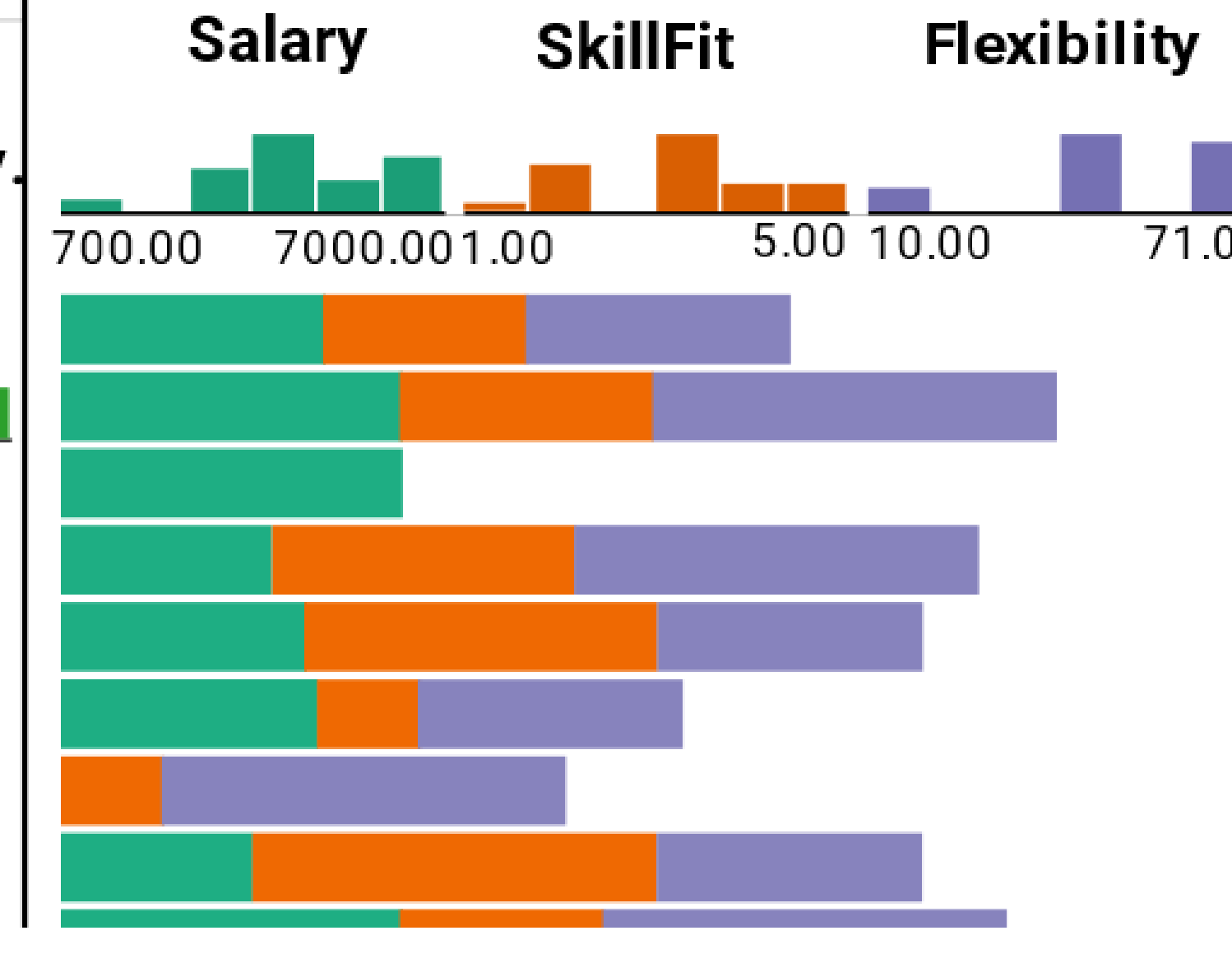
Add Scores Reset

a) JOB LIST

Find your preferred job

Rank	Sel...	JobTitle	Locati...	Salary (50%) + SkillFit	Flexibility
1	<input type="checkbox"/>	Graphic Designer	Toronto		Hybrid
2	<input type="checkbox"/>	FrontEnd Developer	Berlin		Remote
3	<input type="checkbox"/>	Product Manager	San Fra...		On Site
4	<input type="checkbox"/>	UX Strategist	Utrecht		Remote
5	<input type="checkbox"/>	Mobile UX Designer	Utrecht		Hybrid
6	<input type="checkbox"/>	Product Designer	Amsterd...		Hybrid
7	<input type="checkbox"/>	UXUI Lead	Sydney		Remote
8	<input type="checkbox"/>	UI Architect	Chicago		Hybrid

b) Salary (33.3%) + SkillFit (33.3%) +...



STEP 2 Add quantified levels to LineUp View as a new column.

Conclusion:

- The non-equidistant attribute scoring widget enabled job-seekers to express their preferences for qualitative criteria and revise their decision strategies to explicitly include these factors in their option rankings.
- Design challenges remain for widget placement, attribute scalability and industry specific factors in job search.

