

Professional Profile — Cao

Professional Matching Report

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1 Introduction

Hello, Cao! Welcome to your professional matching report! In this document, you'll find solidly researched information on your compatibility with 873 different career paths.

Our state-of-the-art psychometric models and questionnaires were developed using publicly available data from the Bureau of Labor Statistics (BLS) and the Occupational Information Network (ONET). This database consists in a set of 161 job characteristics, such as entry level of education, required skills, abilities and other competencies (rated from 0 to 1), as well as typical job activities, job hazards, and so on.

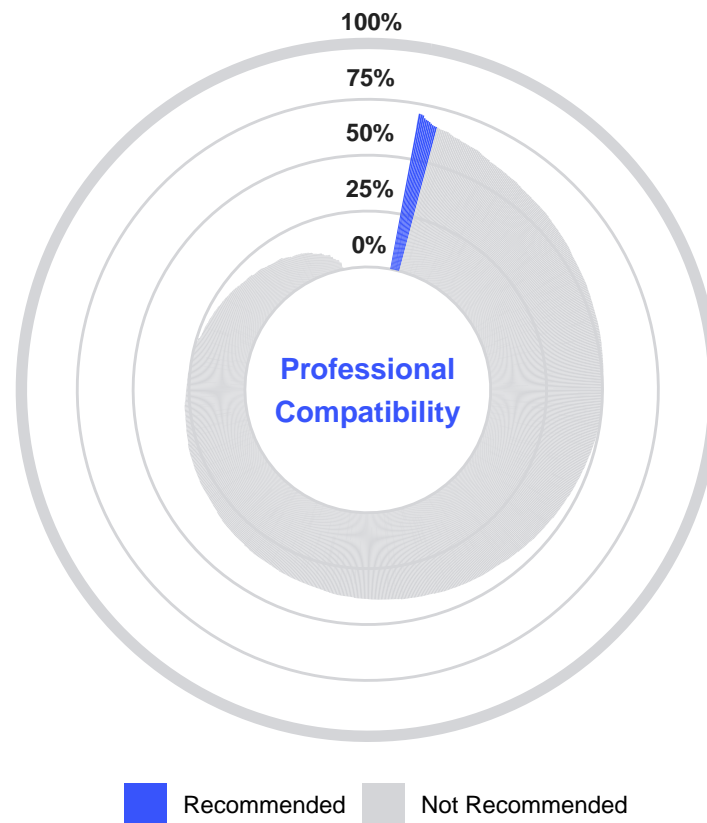
One of our goals at Atlas Research is to determine the career that best fits your professional profile. Therefore, we assess your most important competencies and job preferences, and compare these with the 873 occupations we've gathered from the BLS and ONET. Then, we arrange your professional matches best to worst and estimate a compatibility score as a percentage, indicating your similarity to each occupation.

Don't forget to register at <https://www.go2atlas.com/> to view more detailed reports and gain access to our Mentorship Program. We hope you obtain value from this report. Have a great day!

2 Professional Compatibility Overview

2.1 Ranking

Figure 1: Professional Compatibility Ranking



The figure above is a circular bar chart of professional compatibility scores, where each bar represents the percentage of similarity between your unique set of competencies and one of 873 occupations. The compatibility metric ranges from 0 to 100%, as shown on the vertical axis in the middle of the graph. Your recommended occupations are highlighted in purple, and those with lower compatibility in grey. As this report aims to provide only a brief overview of your professional profile, we will not go into too much detail about specific career matches. See Table 1 for a sample of your best and worst matches.

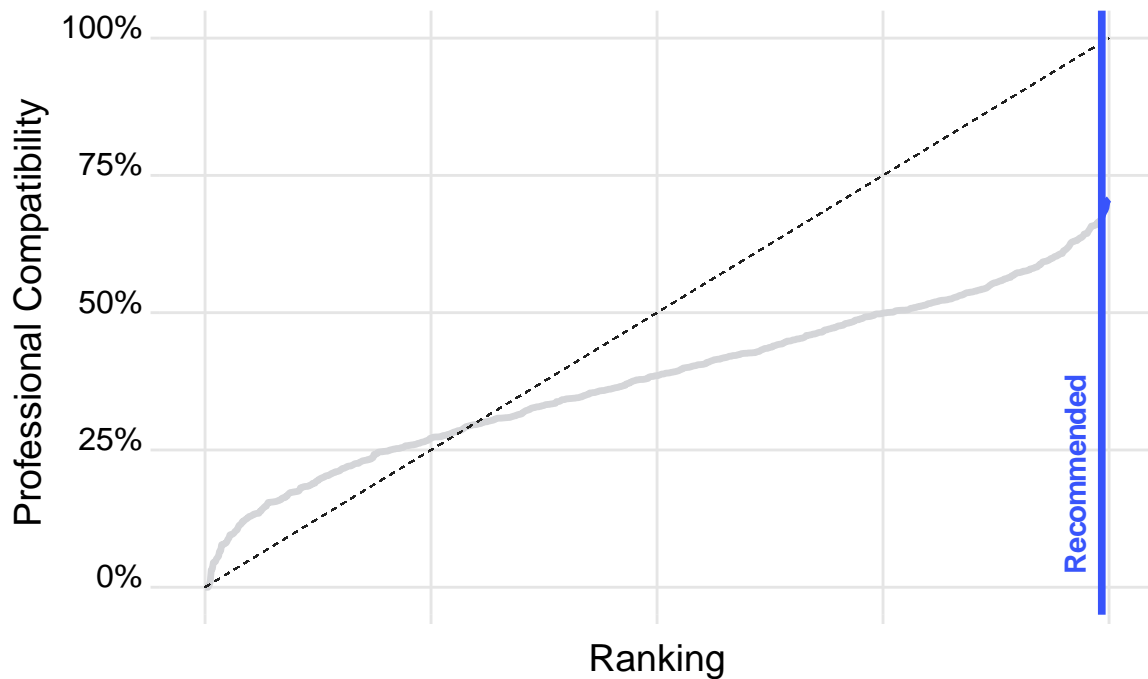
Table 1: Your Top 7 and Bottom 3 Career Matches

Rank	Occupation	Wage	Compatibility
1	Chief Executives	\$179,520.00	70.67%
2	Treasurers and Controllers	\$131,710.00	70.52%
3	Actuaries	\$105,900.00	70.26%
4	Mathematicians	\$108,100.00	69.11%
5	Natural Sciences Managers	\$137,900.00	68.63%
6	Regulatory Affairs Managers	\$124,650.00	68.34%
7	Social Work Teachers, Postsecondary	\$71,010.00	67.93%
871	Helpers—Carpenters	\$36,690.00	0.00%
872	Loading and Moving Machine Operators, Underground Mining	\$57,900.00	0.00%
873	Rock Splitters, Quarry	\$37,700.00	0.00%

Considering this, firstly we note that your best match is “Chief Executives”, with 70.67% compatibility; and the worst is “Rock Splitters, Quarry”, with 0%. The median match is “Geodetic Surveyors”, with 38.54% compatibility, below which lies 50% of careers. Thus, it is apparent that the scope of your recommended activities is extremely narrow, covering around 8 occupations.

The same information can be conveyed with a line chart, like the one in Figure 2 below. This diagram features, on the horizontal axis, your career matches ranked lowest to highest based on the respective similarity coefficients (on the vertical axis). Therefore, each point that constitutes this line chart is your matching percentage with a given career. And because connecting all the points on the graph yields a progression of professional compatibility, this resulting line is called the *professional compatibility curve*. Again, the recommended occupations are highlighted in purple, and the unhighlighted ones (in grey) are not recommend, at least not in terms of basic similarity.

Figure 2: Professional Compatibility Curve



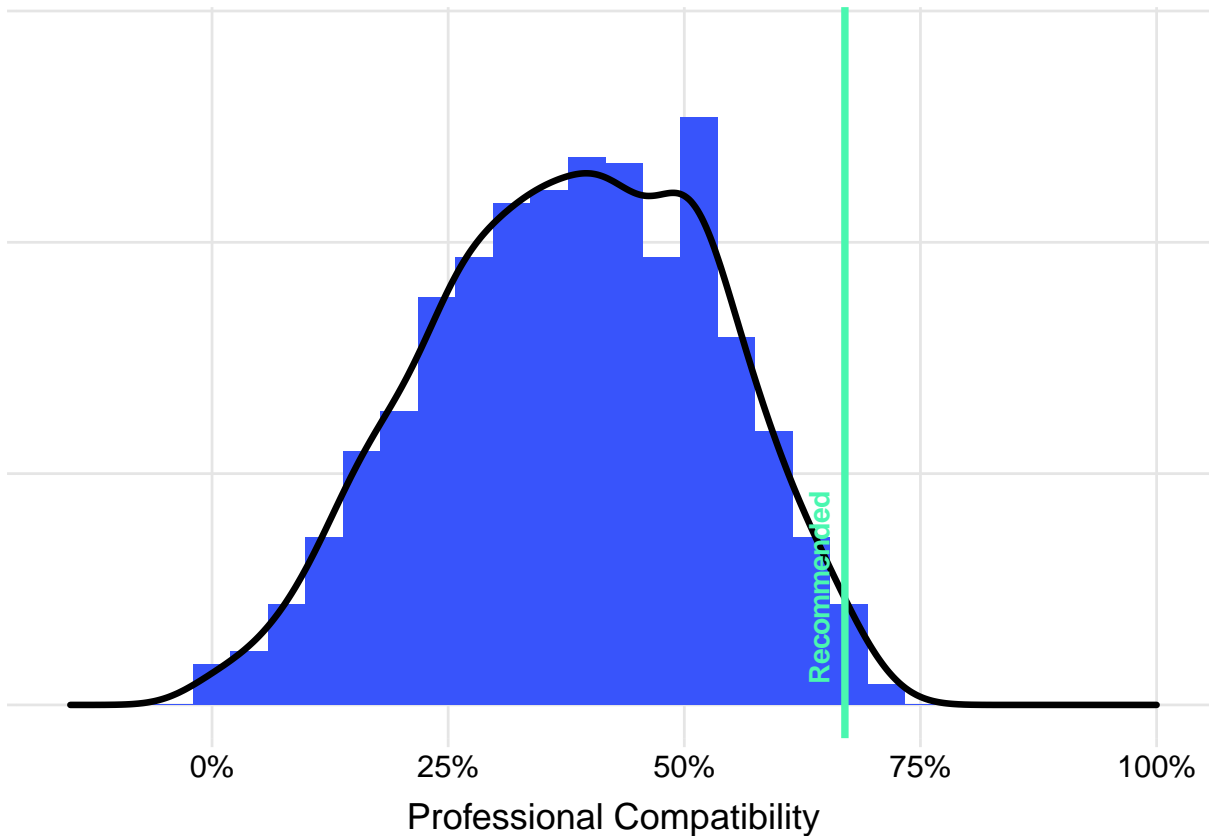
Now, one important thing to comment on is the shape of your professional compatibility curve. For the slope of the curve is an indirect measure of how spread apart is your professional profile. If the curve is flat, then all values are identical. But, in contrast, as the angle of the line increases to 45 degrees (as in the dashed black line), all observations become evenly spaced out and well distributed. And since the distribution in question concerns the viability of different types of employment options, the slope of the professional compatibility curve, in conjunction with the range of recommended occupations, is a strong indicator of how broad or specialized is your professional profile.

2.2 Distribution

It is straightforward to understand the above-mentioned distribution of viable careers by looking at a histogram of professional compatibility scores (Figure 3). A histogram is a data visualization tool which enables us to clearly see the dispersion of a given variable. It works by segmenting data into a desired number of intervals called bins, denoted by the columns on the graph. The height of each column is proportional to the frequency of data points within its bin. Hence, the tallest columns represent the most frequent intervals or classes of data, and as the columns decrease in height, so too the data points in a bin decrease in frequency.

Figure 3 also displays an overlaid density curve of compatibility scores. A density plot is analogous to a histogram, and likewise it is used to evaluate a variables’s dispersion and centrality. However, where histogram bins are discrete in nature (they are *fixed* intervals of numeric data), densities are smooth,

Figure 3: Professional Compatibility Distribution



continuous and not limited by discrete bins. The vertical axis is omitted for simplicity's sake, as densities are dimensionless and not interpretable in themselves.

At any rate, it is now even more evident how your professional profile is distributed, as the outline of Figure 3 makes visible several key aspects of your overall employability. For instance, higher variance of similarity scores makes the histogram and density to be shorter in height, but horizontally larger. Less varied, or specialized, profiles, on the other hand, produce slimmer and taller histograms and densities. The centrality of the distribution is very important as well: if compatibility scores concentrate at the lower end of the scale, then most occupations are a poor match and viable career paths will be limited; but if the distribution is centered toward the right end of the scale, then the opposite is true. It bears mentioning that although graphically the 50% mark appears to be “the middle” of the scale, this analysis is related to the distribution of *recommended* occupations, which is itself centered further to the right.

Statistically, we can assess how dispersed is the compatibility curve by calculating the variance of your compatibility scores. In addition, the skewness of the curve tells us if your profile is restricted to a few niche occupations or if it is less defined. By doing these calculations, we find you have somewhat right-skewed matching percentages across all occupations. This means that, after accounting for the variance of compatibility scores, your professional profile is a little bit specialized, and you would likely do better not investing in too many different career paths, all else being equal.

3 Brief Compatibility Analysis

We now move to an analysis of your top and bottom career matches. However, before this can be done, we must clarify some terminology.

3.1 Categories and Factors

Our psychometric questionnaire for professional profiling is based upon 3 different categories: “Skills”, “Abilities”, and “Fields of Knowledge”. By this we mean that any given item in the questionnaire is associated with one of 3 “very general types” of attributes.

These categories, in turn, are divided into individual factors. In psychometrics, factor analysis is a technique to group variables according to how they correlate to one another. These groups of variables are called factors, and all items in our professional profiling questionnaire have been empirically assigned to one of 9 factors. Thus, categories are divided into factors, which are themselves divided into items. This is how the Atlas Professional Profiling Questionnaire is organized.

Since explaining the intricate statistical procedures employed in the construction of our psychometric models is not the main focus of this brief report, we limit ourselves to listing the categories of analysis, with their respective factors. Firstly, the “Skills” category is composed of 2 factors: “Discernment”, and “Technical Skills”. Secondly, the “Abilities” category splits into: “Perception”, “Dexterity”, and “Intelligence”. And finally, the category “Fields of Knowledge” contains 4 factors: “Health Science”, “Building”, “Business”, and “Arts & Humanities”. These are the categories and factors in the model covered by the 33 items which help us characterize each occupation in our database.

3.2 Your Best and Worst Matches

Figure 4: Your Best Career Match: Chief Executives

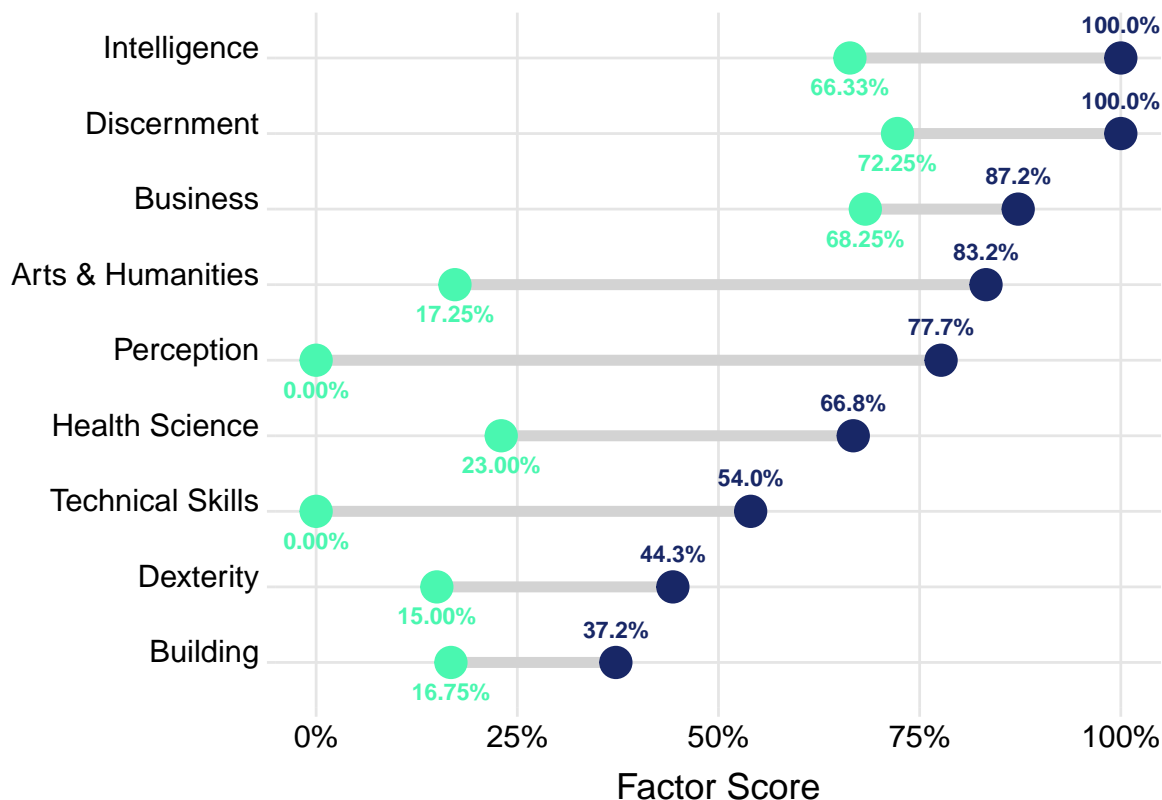
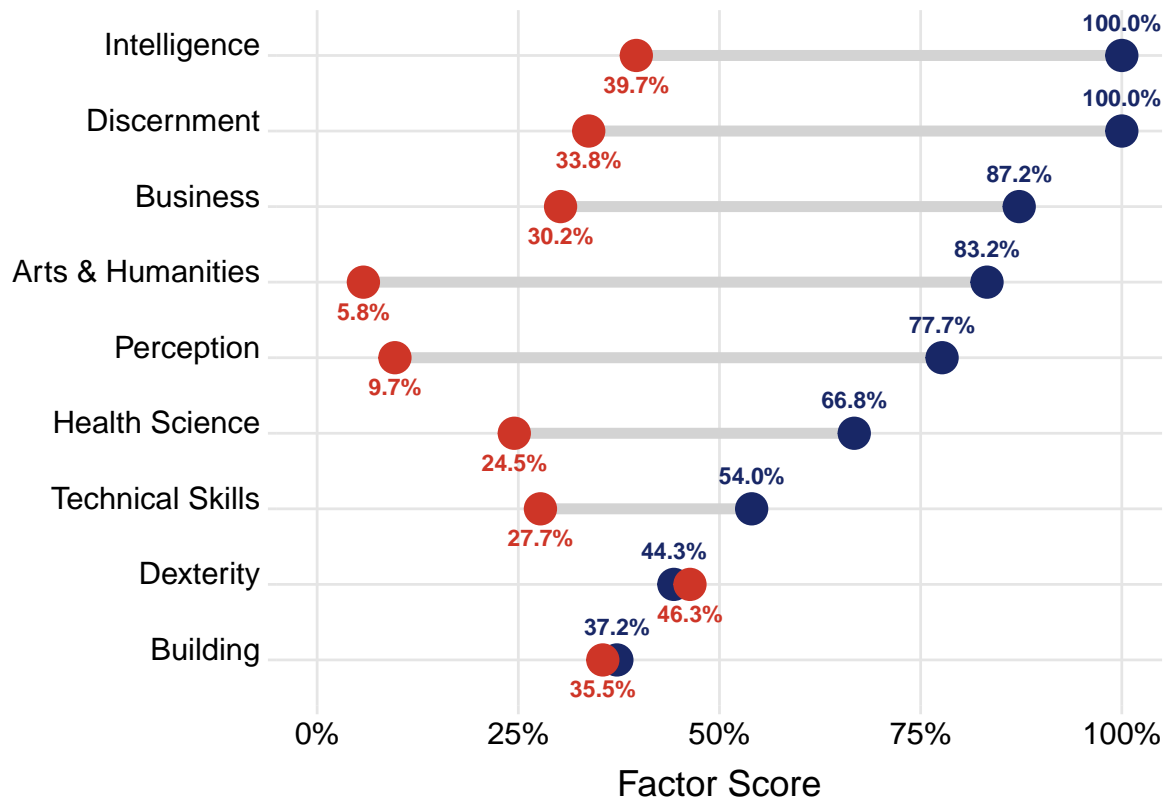


Figure 4 gives us a glimpse of your professional compatibility with “Chief Executives”, your best career match. Here, we immediately see that you’re most similar with respect to the “Business” factor, and most

dissimilar with respect to “Perception”, the differences comprised within 1.75 and 77.67 percentage points. We also observe that you’re underqualified for exercising this occupation in not a single factor whatsoever, and overqualified in all of them. Lastly, your three biggest strengths are “Business”, “Discernment”, and “Intelligence”, while those of “Chief Executives” are the exact same.

Finally, the figure below features an analysis of your least compatible occupation, “Rock Splitters, Quarry”:

Figure 5: Your Worst Career Match: Rock Splitters, Quarry



Again, it is immediate to notice that the “Building” factor is highest the point of similarity, while the lowest is “Arts & Humanities”. In this case, the differences range from 1.75 to 77.5 percentage points. In terms of your current capacity to exercise this profession, we assess you to be underqualified in the “Dexterity” factor, and overqualified in the rest of them. The three biggest strengths of “Rock Splitters, Quarry” are “Building”, “Dexterity”, and “Intelligence”, which have “Intelligence” in common with yours.

4 Finishing Remarks