

Using Intelligent Search  
to  
find hidden skills

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A Case Study  
for  
Staffing and  
Recruitment Professionals

r/ally Inc.



## Introduction

r/ally is a ground breaking new solution for helping people to find “Who Knows What” in an enterprise. This cloud based application uses natural language input - from the r/ally mobile or desktop application - that interacts with r/ally’s machine learning engine to find answers to questions using a proprietary search technique that is different from traditional keyword based searches.

Specifically, r/ally’s Human Capital Search (HCS) solution adds intelligence to automation to provide answers to questions posed about skills, experience or knowledge in a data source, i.e. a legacy database.

r/ally recognizes millions of concepts and their degree of association with each other, rather than relying solely on a keyword search. It uses the knowledge of these learned concepts – which are continually being updated from external data sources - to deliver the answers that recruiters and hiring managers need, while also describing the associated topics that it found to validate the answer.

This case study illustrates how r/ally is used by recruiters and search executives in Professional Staffing and Recruitment Services companies to

1. find candidates with the relevant skills and experience that already exist in their resume database, but have been ‘hidden’ because they were not uncovered by current search tools
2. find candidates for new assignments, by enabling r/ally to search candidates’ skills and experience to find associated relevant topics or keywords that indicate who may have the required skills, even though the exact skill or product name is not listed in the resume

## Benefits

In this case study, we demonstrate 3 benefits of r/ally:

1. The ability to query a database with simple, natural language input
2. The use of semantic linking to infer a potential skill/knowledge set based on the presence of another relevant and related skill
3. How r/ally can be used - with minimal training and no formal knowledge of proper search syntax - by professional staffing and recruitment companies, internal recruiters or talent managers to quickly and easily assess and prioritize, suitable candidates for a new role

## Objective

The objective for this case study is for a recruiter at a Staffing & Recruitment services company to quickly find a short list of suitably qualified candidate from a large database of resumes.

The resumes can cover any industry, even one with proprietary, technical terms, so no sorting, filtering or pre-processing of resumes is required.

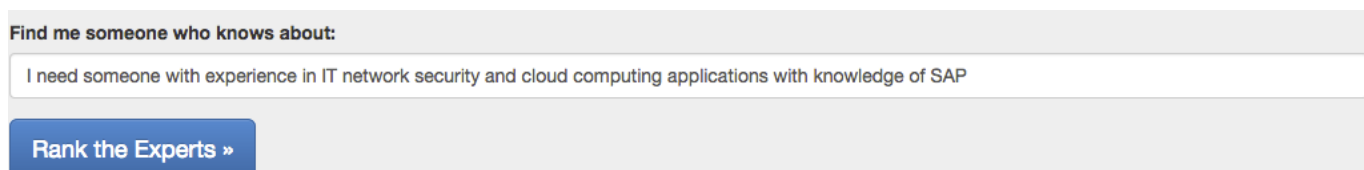
## Search Process

In this scenario, there are 3 steps to the search process using r/ally

- 1) A client manager identifies the core knowledge requirements for the post to be filled, and provides the recruiter with a brief requirement based on the skills and experience that the client wishes to use as the key skills needed for the open position
  - These skills may include technical industry terms which only those working in a particular industry may be familiar with
- 2) A manager then uses these core knowledge requirements to search r/ally
  - r/ally analyzes experiences in prospective candidates' backgrounds to detect direct matches and indirect matches with the core knowledge sets
- 3) r/ally then identifies a summary of the candidates that have the most relevant skills that match those skills that are 'connected' or associated with these experiences
  - a recruiter can perform more detailed analysis of the short list of candidates by expanding upon the profile information provided by r/ally

## Sample Query

To start the process, the recruiter enters a search request to r/ally in natural language form as shown below

A screenshot of the r/ally search interface. It features a light gray background. At the top, the text "Find me someone who knows about:" is displayed in a small, bold font. Below this is a white text input field containing the query: "I need someone with experience in IT network security and cloud computing applications with knowledge of SAP". At the bottom of the interface is a blue button with the text "Rank the Experts »" in white.

## Extracted Skills and Knowledge











r/ally identified the skills and knowledge requested and displays a list of the candidates that it believes to be potentially relevant to the requirement. r/ally displays the leading candidates' skills by listing them in order of relevance, identifying the candidates with a 'weighted' score.

## Results

Based on your query:

*I need someone with experience in IT network security and cloud computing applications with knowledge of SAP*

r/ally thinks the following colleagues might be able to help you:

User	Score	First Name	Last Name	Highest Relevant Skill	Direct Skills	Indirect Skills	Primary Knowledge Area	Secondary Knowledge Area
 <a href="#">Show Skill Profile</a>	139.82	Ishan	Menendez	information technology	5	2	IT	Project Management
 <a href="#">Show Skill Profile</a>	135.02	Thomas	Lohr	information technology	4	3	Project Management	IT
 <a href="#">Show Skill Profile</a>	132.96	Sandy	Cox	sap ag	4	3	Project Management	IT
 <a href="#">Show Skill Profile</a>	124.82	Tama	Cutters	information technology	4	3	IT	Project Management
 <a href="#">Show Skill Profile</a>	121.28	Piter	Sady	cloud computing	3	4	Software Development	IT
 <a href="#">Show Skill Profile</a>	115.18	Carlos	DeSario	information technology	3	4	Marketing	Project Management
 <a href="#">Show Skill Profile</a>	98.75	Dave	Kashefi	information technology	2	3	IT	Entrepreneurship
 <a href="#">Show Skill Profile</a>	90.29	Laura	Jones	application software	2	5	Software Development	Consulting
 <a href="#">Show Skill Profile</a>	87.53	Brenda	Tomer	sap ag	6	1	Project Management	Consulting
 <a href="#">Show Skill Profile</a>	86.05	Jane	Parker	information technology	3	3	IT	Software Development


r/ally displays a short list of candidates with their Highest Relevant Skill that r/ally extracted from their profile. It also identifies the 'Directly' related skills and 'Indirectly' related skills that each candidate possesses, along with other relevant areas of knowledge.

These headings have not been inserted into the profile. r/ally looks at the skills and experience in the profile database, looks at frequency and currency of these skills, and experience and orders them based on relevancy. A candidate with equal skills or relevancy but with one skill acquired more recently, will be weighted higher than someone with a similar skill but with less current knowledge of

that 'skill' A 'skill' can be a product name or suite of products, a technique or other knowledge acquired that is relevant.

## Candidate Profile

Next, the recruiter can look at profiles. The recruiter can look at the candidate with the highest weighted score, and expand on it by clicking on the *Show Skill Profile* button

User	Score	First Name	Last Name	Highest Relevant Skill	Direct Skills	Indirect Skills	Primary Knowledge Area	Secondary Knowledge Area
 <a href="#">Show Skill Profile</a>	139.82	Ishan	Menendez	information technology	5	2	IT	Project Management

The candidate profile will show the Relevant Directly and Indirectly relevant Skill headings, as illustrated below



Ishan Menendez  
 Job title: Senior Project Manager, for Financial Trading Services  
 Deploying Low Latency Infrastructure.  
 Location: Chicago, Illinois, US

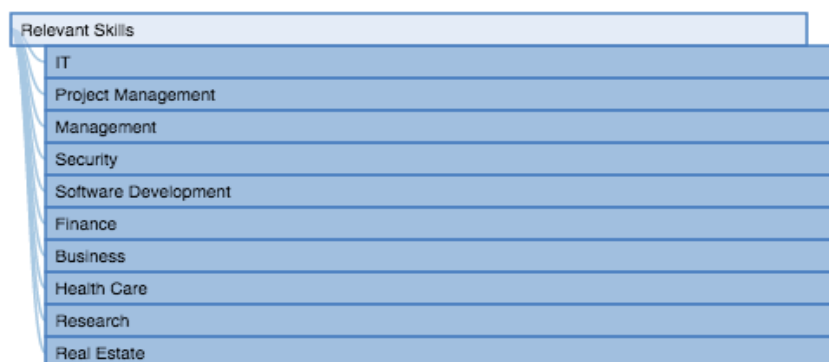
**Score: 139.82**

**r/ally Query:** I need someone with experience in IT network security and cloud computing applications with knowledge of SAP

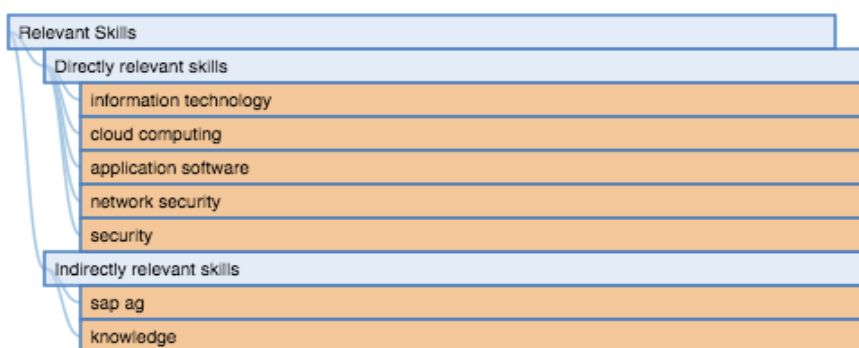
Relevant Skills
Directly relevant skills
Indirectly relevant skills

Followed by the Additional Areas of Knowledge headings, viz:

#### Additional Areas of Knowledge



At this point, the recruiter may want to delve into the skills and experience that the candidate possesses, in which case he/she will see the top tiers of the 'tree cluster' become unpacked to show the skills at the next level down.



While these skills may all be of relevance and interest, the recruiter can also pull up other profiles to compare the two.

The objective for r/ally is to provide a short list to enable a recruiter to quickly find candidates with relevant skills, so that the recruiter can then use his or her experience and judgment to enable the recruiter to arrive at a suitable short list quicker and more accurately than using a traditional keyword or boolean search engine.

Similarly the recruiter may want to look at other candidates. For example one of the candidates has a lower weighting but does have SAP as a specific 'skill'.

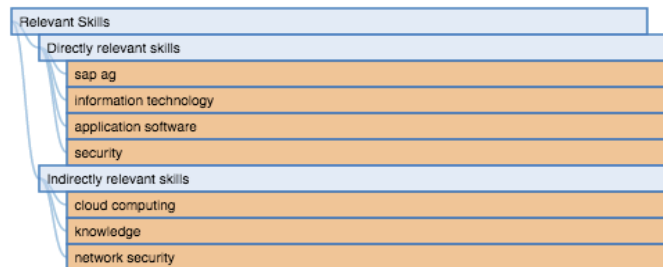
## Employee Profile



Sandy Cox  
Job title: SAP Solution Manager & QA Test Lead at A&Z Consulting  
Location: Santa Clara, California, US

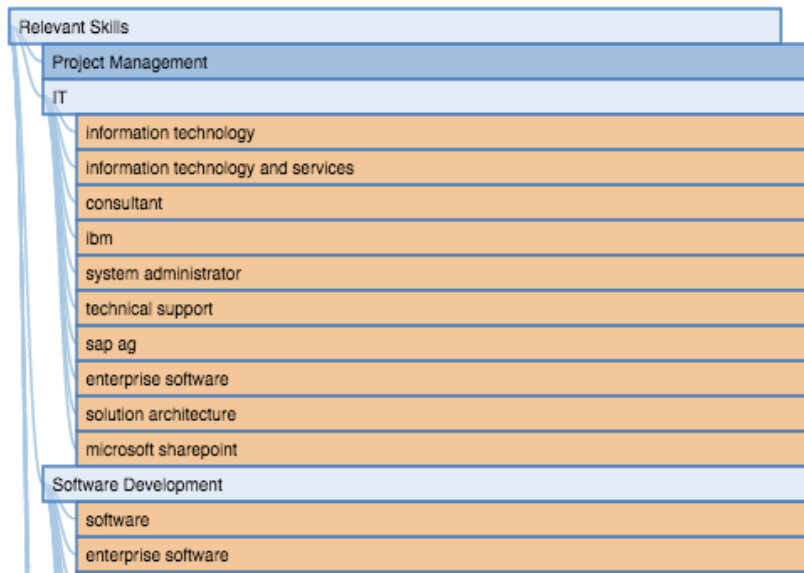
**Score: 132.96**

**r/ally Query:** I need someone with experience in IT network security and cloud computing applications with knowledge of SAP



This may be of interest, so the recruiter can look at Additional Areas of Knowledge and see the following experience

## Additional Areas of Knowledge



These results were drawn from a large, anonymized database of profiles drawn from many industry segments. It is a simple search using generic terms. However, r/ally can understand more complex and

technical industry specific terms. This is of great benefit to an internal recruiter, who may not be familiar with the skills required in every department of a large enterprise.

## Summary

After taking input on the skills and experience required by the client, the recruiter has used r/ally to quickly, and easily, discover candidates with the appropriate skills required by the client. In the process, the recruiter is able to augment their technical knowledge of how some skill sets, products and other technical terms are associated with desired skills

The entire process – including searching through a candidate database, has taken 15-20 minutes of reviewing a summary of potential candidates and arriving at a decision on which candidate(s) to proceed to the next stage with.

Using r/ally's Human Capital Search (HCS) enhanced analytics in conjunction with r/ally's collaboration application for iOS, Android and Blackberry devices also enables professional recruiters to use r/ally while on the go from their mobile device.

## Benefits Summary

This Case Study demonstrates the significant reduction in time and effort and the costs that can be saved by using r/ally to search a database of profiles from an internal legacy data source.

Because of the ability to save time by conducting multiple searches and iterating those searches, a full time professional recruiter using r/ally can

- reduce their time spent looking for suitable candidates by over 50%
- increase productivity on a pro-rated basis, and
- gain a competitive advantage by finding and placing candidates quicker than using traditional keyword search methods

**A recruiter using r/ally for less than two hour per week will generate sufficient savings in time and effort – excluding the additional benefits from reducing recruitment cycle time - for r/ally's Human Capital Search (HCS) solution to pay for itself and generate a positive Return on Investment for the enterprise.**