



A3: BUSINESS INSIGHT REPORT

Mohssin Elyounssi

HULT INTERNATIONAL BUSINESS SCHOOL
TEXT ANALYTICS AND NATURAL LANGUAGE PROCESSING (NLP) - DAT-5317 -
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After my summer elective in **Introduction to Bitcoin and Blockchain**. It was like a revelation for my future job. I am so excited about this new world. Therefore I decided to know more about it. I reached to Hult alumni, I read a lot of books, and I attended many of Blockchain's meetings. As a result, I have to choose between two paths: to be a Crypto Analyst or Blockchain Analyst. With this in mind, I believe text mining will help me to make the best decision.

I selected from LinkedIn my 10 dream jobs as Blockchain Analyst and Crypto Analyst. I created 2 folders, then I applied my skills of text mining this is my finding.

In the first place, I wanted to have an idea about the top 20 frequent words in Blockchain Analyst(BCA). By using the TDM (term-document matrix) framework see the result below.

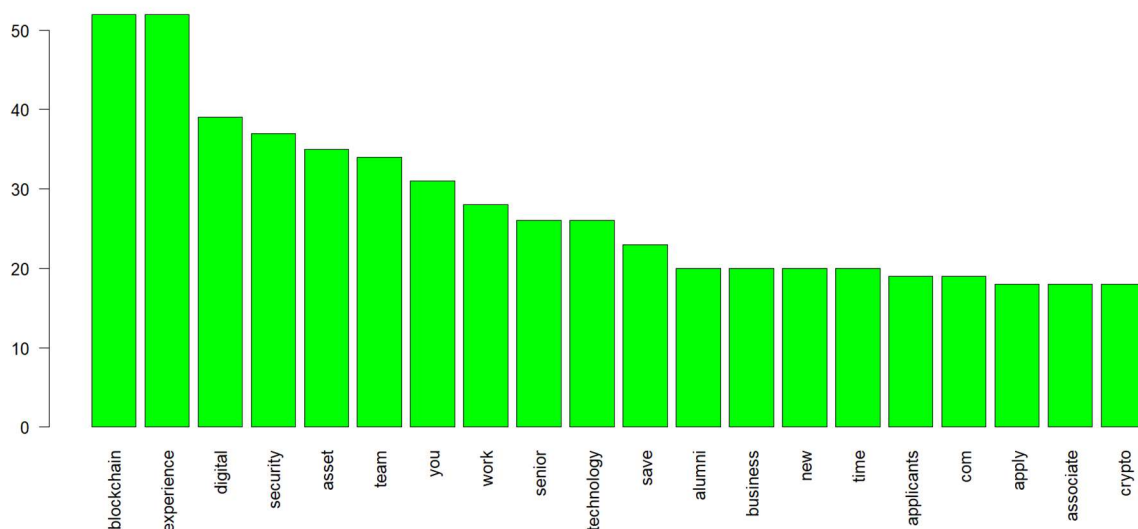


Figure 1: The top 20 frequent words in Blockchain Analyst jobs

The graph shows the importance of experience in digital assets. Furthermore working in a team. On another hand, I was surprised to find security but when we take some time to think about it is logical, because cyber security is an important skill to the digital asset. Especially since the world becomes more and more digital.



Figure 2: The wordcloud Blockchain Analyst jobs

By curiosity, I wanted to have a perception of the word cloud. As we can see here the trilogy comes back. I mean working on digital assets with security.

To push the investigation deeper and deeper. I choose to use the Bi-gram framework to see if there are some interesting patterns.

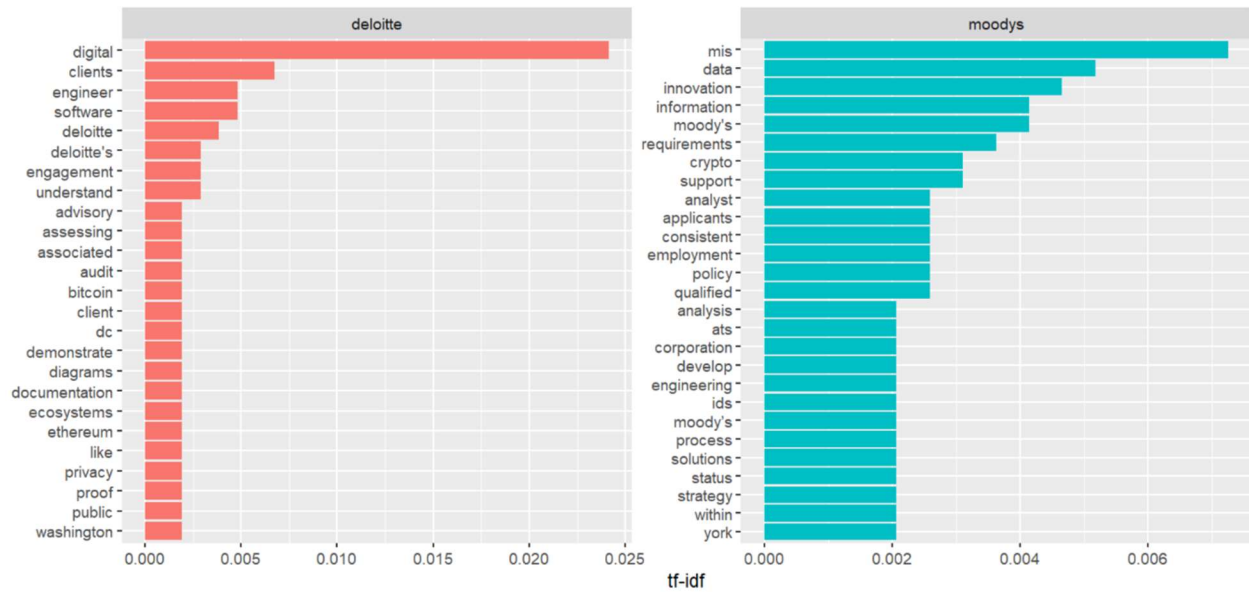


Figure 4: TF-IDF Blockchain Analyst jobs

On one hand, we see client and engagement I the top in the Deloitte graph. This is logical since Deloitte is a consulting firm and client-centric. On the other hand, we see information, data, and requirement. It makes sense because Moodys is a notation firm. Wich needs information and requirement to give grads to companies.

Let's have a look at what Crypto Analyst(CA) jobs hid.

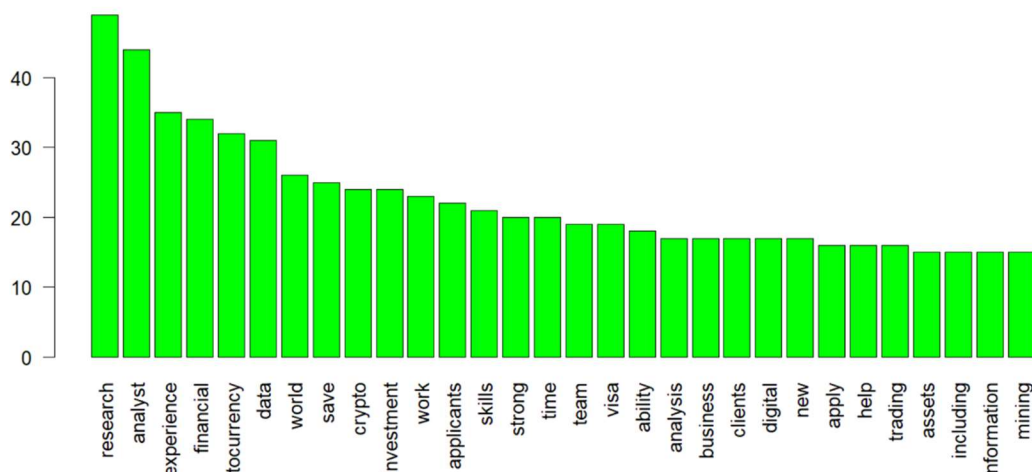


Figure 5: The top 20 frequent words in Crypto Analyst jobs

- ✓ **Risk-takers:** is the most skill that an investor should have
- ✓ **Analysis data:** data driver is very important to invest.
- ✓ **Crypto:** related to research, trends, reports, assets, and visas. I think visa is related to sponsors for foreigners students.

With text mining in my hands why not use it for my resume?

I applied the same process of BCA and CA jobs, this is my finding.

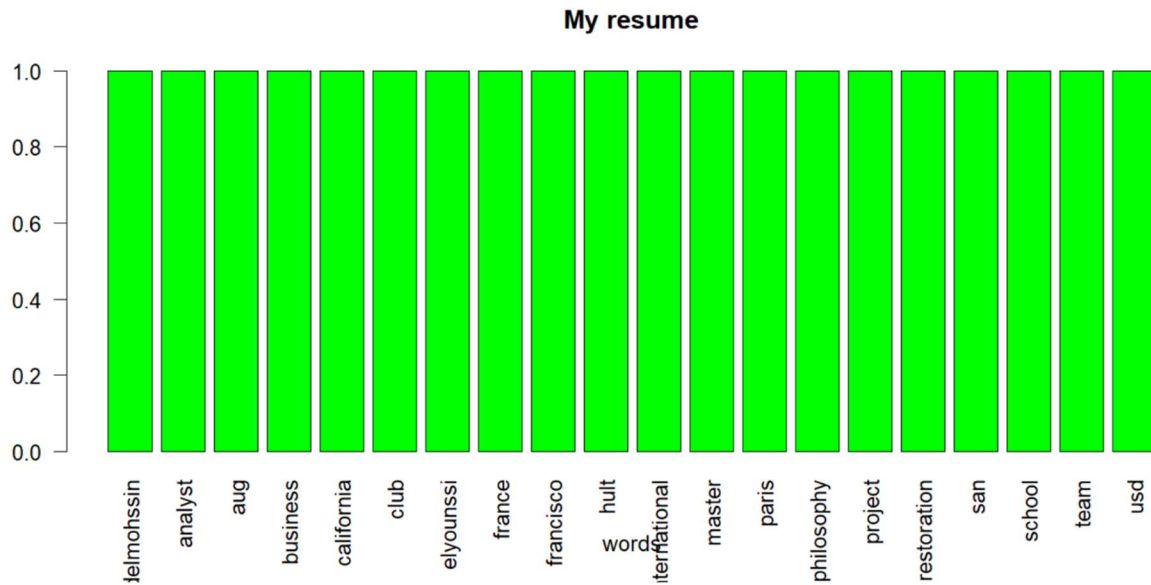


Figure 7: Top 20 frequently words in my resume.

With this graph, the first thought is not a good idea to apply text mining to a resume. But it makes sense because the base of the resume is not to have a residence in words. Especially I used algorithms to check it.

Let's check the Bi-gram.

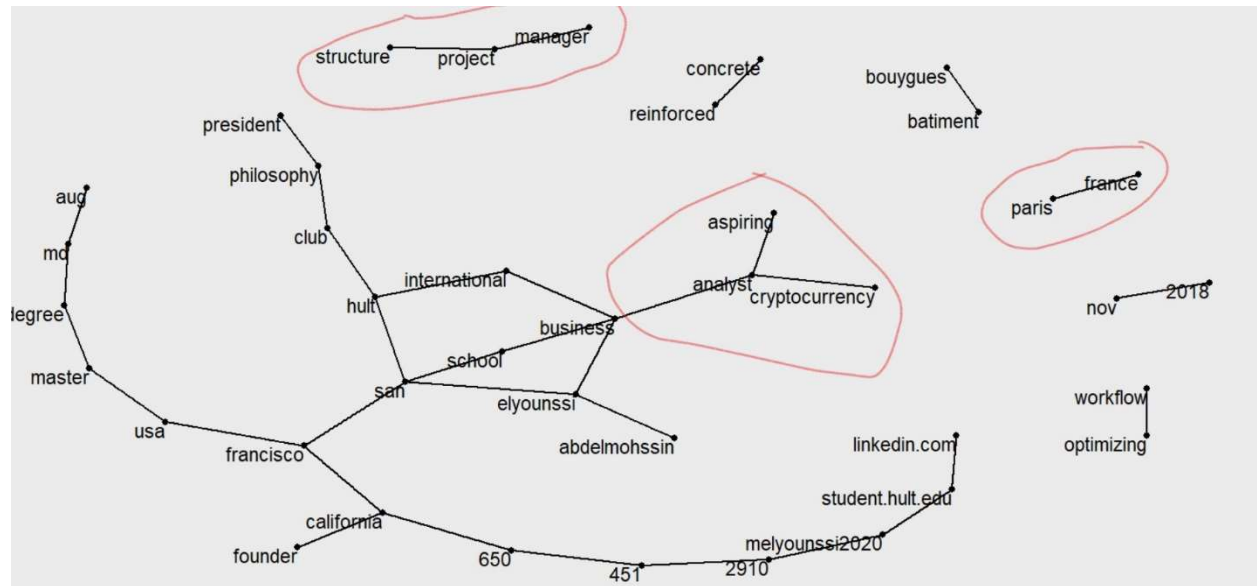


Figure 8: Bi-Gram Blockchain my resume

Patterns:

- ✓ **France Paris**
- ✓ **The structure project manager** was my former job
- ✓ **Aspiring cryptocurrency analyst:** my future job

The insight from my resume is not the existence of interesting words, but the absence of the words that I found in both BCA and CA. This characteristic is fundamental because now I know why LinkedIn (who viewed your profile) is not from Blockchain or Crypto companies.

Which sentiment uses recruiters in job announcements?

To respond to this question we will use sentiments analysis with affin, bing and nrc methos.

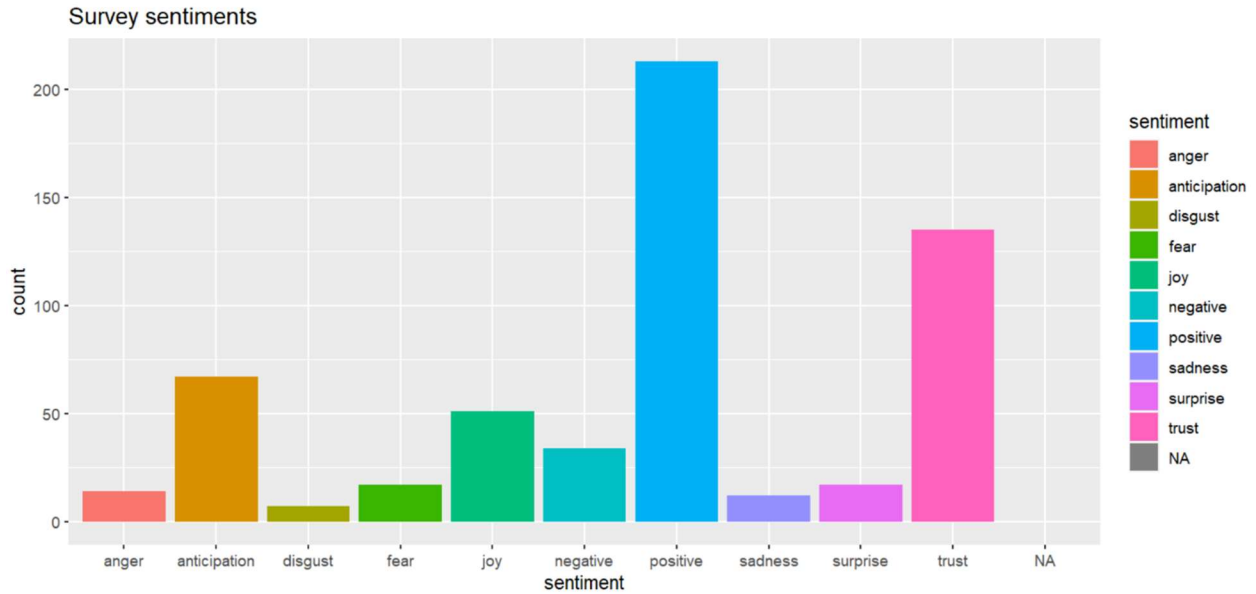


Figure 9: Sentiments analyses

Positive sentiment in job announcements is not a scoop. In contrast, find anticipation and trust are interesting surprises for me. Wich, I will use to update my resume.

Conclusion

This project demonstrated that with text mining we can find surprising insights. For example, before I thought Cryptocurrency Analyst and Blockchain Analyst are the same. The top frequent words and bigram showed different realities. Indeed, the first one is more focused on cyber security, engineering, and mastering specific software. The second one on other hand is concentrated on data drivers, investments, and the financial domain. Furthermore, sentiment analysis revealed the tone of the language we must use for resumes. Finally, this exercise revealed to me the reason why my profile LinkedIn doesn't appear in Blockchain companies. Sometimes words shine by their absence.

Refrence

Abdelmohssin Elyounssi - linkedin.com. (n.d.). Retrieved December 6, 2021, from <https://www.linkedin.com/in/abdelmohssinelyounssi>.

Coinbase | LinkedIn. (n.d.). Retrieved December 6, 2021, from <https://www.linkedin.com/company/coinbase>.