

Group TWO Rossella Toro

Rossella Toro(1985) is an experienced mathematician (First Class MSc Degree in Applied Mathematics - Statistics and Finance) with a genuine passion for Data Science. She's experienced in data analysis techniques and database development. Currently she lives and works as data analyst in London.

1. What was your dream when you were a child?

I wanted to become a brilliant chef because I used to love cooking together with my grandmother and I always remained thrilled because of her delicious treats. As time went on, the will of becoming a chef gradually faded away even if, thanks to the education my grandma has passed down to me, I think to have become a good cook: kneading, baking cakes and cooking are part of my favourite free-time activities!

2. When and how did your interest in mathematics born?

Mathematics has always been a challenge to win, for me. When I went to middle school, I had a lot of problems with this subject because I hadn't got the correct basis: I usually spent whole nights on problems and operations that regularly I wasn't able to solve in the correct way, and also for this reason my teachers suggested me to continue my studies on a Professional high school. I followed their advice and, right here, my passion for mathematics born. I had the privilege to have a brilliant teacher who let me love the subject which, together with my will and my good marks, induced me to enroll to a major in Maths.

The difficulties at the beginning of the course were consistent, my preparation was lower compared with my mates' one, but this didn't stop me: on the other hand it boosted my will to understand and to win this challenge.

3. When did you finish your studies?

As I've already said, the journey in my high school didn't prepare me at a so big step, so my first achievement, the "bachelor degree", take much more time than it is usually: a journey of three years that, for me, have been five. The following achievement, the "post-graduate degree", has been completed on time and with the result I've always looked for. In total I spent seven years to finish my studies, but it earned me the maximum score (110 on a total of



110.)

4. What did you want to do when you finished your studies?

In those days the job title wasn't really clear to me, but the idea was the one about applied mathematics and, because of my specialisation in Statistics and Finance, I wanted a job that could permit me to apply mathematics, but specifically the statistic branch to solve problems and it is what today, as a data analyst, I realized.

5. Would you recommend people to start studies in mathematics? According to you, what are the prerequisites to excel in this field?

If you like maths, of course I recommend it, but don't be hasty on giving an answer based on years spent on applying formulas in a mechanical way, because maths is not this.

If you want to understand and you are curious to know, do not give up at the first defeat, maths is the science who belongs with you, it is fascinating and multifaceted that combines abstract thoughts with powerful practice applications. To understand better, here there are some examples:

In the field of natural and social sciences, mathematics can be a powerful and elegant way of describing with accuracy and efficiency concepts unconnected to ordinary language.

In the field of theoretical physics, the sorting and the study of elementary cells is possible thanks to sophisticated algebraic and analytical methods.

In economy, for example, in the analysis of financial markets, hard methods of probability assessment are crucial.

These are good reasons to study mathematics but there are also a lot of other examples in Engineering, Biology, Medicine...

In conclusion, to study maths at university you must have passion.

6. Did your parents support you when you decided to carry on the studies?

My parents always supported my choices and they helped and motivated me a lot during my studies that, at the beginning, were not really simple. With their aid they helped me in reaching my goals and in never giving up. They were essential to me.

7. How have you been influenced in positive and negative by the living and working period in London?

First of all living in a city as big as London has a lot of positive aspects connected especially to its size and its opportunities. The principal reason which encouraged me in moving is the one linked to the search of a working safeness and a consecutive professional growth.

London is a city full of opportunities, where even if you start from the bottom and if you undertake, you can go on.

It is also possible to know different cultures working together. Even though cultural and social features, all the people abide by the rules.

On the other hand the prices are high, the climate isn't really exciting and it isn't really simple to live far from your relatives.

8. Are you satisfied by the results you achieved?

I'm really proud and satisfied of my journey, but I still study and continue the research to improve myself and reach future achievements.

9. Do you think that practising a sport helps in studying?

I truly think that practising a sport is not only advisable, but also necessary. Sport is really important for mental and physical health, and pairing study and sport can have positive results on your mind and your studies too!

I always go to the gym, it helps me in relaxing and managing the stress: being undertaken in a physical activity helps me in insist on objectives. In addition, sport disciplines also to accept the defeat, to raise communication, in order to transform your job in a match played on the field.

10. Three words to describe mathematics.

I can quote a sentence said by Aristotle which describes what, for me, is the good part of maths: "The ones who say that mathematical sciences don't speak about beauty, are wrong. Largest forms of beauty are order, commensurability, accuracy."

I would like to add "abstraction and usefulness" to these. Abstraction because maths gives the opportunity to dive in the imaginary world of theories and re-emerge to explain what is real. Maths gives mental flexibility. Usefulness because maths is a part of our world, whatever you do, you will always need maths because it is useful for everything. Without maths you wouldn't be able to stay in front of a computer, you could not watch television, send text messages! To speak about technology... without maths all the people would think that Earth is still and the Sun revolves around it, no one could have been to the Moon because Physic's formulas and laws are maths, however! Without maths there would be the barter still, there wouldn't be chemistry, medicine, economy...