

At the age of 9 and 10 I lived in India, where my teacher showed me Gauss's method to sum an arithmetic progression. This was the point when I knew that I wanted to go deeper into the world of mathematics. Since then I have always been fascinated by mathematical proofs, especially ones that bring ideas from two seemingly different areas of mathematics, such as the proof of Euler that there exist infinitely many prime numbers.

At the age of 13 I was admitted to study in the special maths class at Fazekas Mihály Primary and Secondary School, Hungary's leading school in mathematics. Since the age of 16 I have participated in all Olympiad preparation Camps, as well as many other math camps such as the MAMUT camps where the top 15 students from the country are invited. I also take part in the camps of Lajos Pósa where students are inspired to discover parts of mathematics themselves, for example we proved that there are arbitrary large gaps between consecutive powers. Additionally, I take part in workshops provided by my school, such as the Olympiad preparation workshop, which helped me prepare for the competitions. Another workshop held by László Surányi involves covering larger topics, for instance hyperbolic geometry or smaller ones such as the prime number estimates of Merten's. My curiosity made me go beyond our school curriculum, so I read books and different articles in topics I found interesting. I studied the book Number Theory by Szalay Mihály, that was special to me as it contained an elementary proof for Dirichlet's theorem on primes in arithmetic progressions. Beside all this I was doing extra maths at home, mainly practicing for competitions.

My hard work paid off and I got various achievements in national and international mathematical contests. The following are ones that I am most proud of:

- In the Kömal competition I achieved 2nd place in category A in 2016 and 2017 and 4th place in category B in 2016. Here problems are given every month in 4 categories, category A being the hardest one where only 3 problems are proposed every month and are often problems harder than the IMO and require a wider range of knowledge.

- Hungarian National Olympiad (OKTV) in mathematics 3rd place.

- Kürschák József Mathematical Competition 2nd prize, 2-5th place (first year undergraduates compete as well).

- I got a gold medal (absolute 4th place) in the Italian National Olympiad.

- I earned a bronze medal in the Romanian Masters of Mathematics in 2017.

- In 2016, I was substitute member of the IMO team, and I achieved bronze medal at the Middle European Mathematical Olympiad.

- In the same competition, I won a gold medal in the following year (absolute 3rd place).

I learned to work hard for achieving my goals and to work in a competitive environment.

Last year I did a 96% Maturity Exam in English, and recently did an IELTS, scoring 7.5 overall. As mentioned I lived in India for 2 years, where I studied at an International school. I met people from all over the world, and I still have friends that I meet regularly. Over these years I realised how comfortable I feel in an international environment, and this is just one of the many reasons why I would love to study in the UK.

In my free time, I do programming. For instance, I participated in Codeforces tournaments where contestants should solve 5 problems in the given time limit. Recently, I programmed an Arduino microcontroller to measure the speed of a fidget spinner, this involved not just programming but electronic skills as well.

I am also involved in sports, I did swimming for many years, and now I am doing tennis on a regular basis. I believe I would gain a lot from the high standards of education in the UK, and would like to perform on the highest level at one of the top universities.