

What I've always found fascinating about sciences is how they kept surprising me, especially when I least expected so. Let that mean a simple trick to solve a problem, or a whole new way of seeing things, mathematics would keep rewarding me for my efforts. This is why I can't imagine myself doing anything but studying number theory, analysis or logic on a higher level after I graduate.

I became interested in mathematics in my elementary school years, but only started putting in more effort around 7th grade, when I first won a major international competition held in Serbia. From then on, I found myself preparing for hours and hours a day, and ended up winning the Varga Tamás and Arany Dániel competitions in each of the following 3 years. In 8th grade, I learned about calculus, and went through numerous online courses regarding the topic. I learned how to differentiate and integrate, and how to use such skills when solving not strictly related problems. At some point, I was invited to the weekend mathematics camps of Lajos Pósa, where a few students of my age and interests shared the environment, lessons and tutors for 3 days of intensive training and exploration. We covered topics such as graph theory, discrete optimisation, infinite sets, and even a bit of group theory. All this inspired me to move from my hometown to Budapest. Since September 2021, I've been attending Fazekas Mihály Secondary School, often considered the strongest in terms of scientific studies in Hungary. From this point on, I could learn and prepare amongst the most inspiring high school students in the country, broadening my attention span even further.

Perhaps as a result, I came 2nd in the team selection competition for IMO, and won a bronze medal in Oslo this summer, which is the achievement I am most proud of to this day. I spent the entirety of May and July getting used to olympiad style problems, and often went down a rabbit hole, when I found an interesting topic mentioned in the textbook solutions. This led to a lot of personal discoveries about fields of maths, such as measure theory or projective geometry. The latter was used as a foundation for automating the process of solving geometry problems (commonly known as the Polynomial Method). One of my friends became very fond of the concept, and as we couldn't find much literature on the topic, we started researching it for further use. I enjoyed coming up with statements regarding the behaviour of moving objects, not only because it was fun, but because I could see a clear usage of all our efforts. In September 2022, I got an invitation to Math Beyond Limits, a camp held in Poland. It was a great opportunity for me to meet with people who are either still in high school, or already attend a British university, and could tell me about the education and the environment, further encouraging me to apply. Same was the case when I visited the city of Oxford back in May as part of WARP, where I got to experience how marvellous the English countryside, the historical university buildings and the food was. I could easily see myself doing my day-to-day routine in such a community.

My second favourite field is computer science. I participated in IOI twice, got 2 silver medals at the Central European Informatics Olympiad, and a bronze at EJOI. I find a lot of comfort in thinking about optimisation, structures, graphs and love when a problem has an ad hoc solution to it as opposed to a mechanical proof.

I love to do sports, my current favourite is volleyball, because the result of any good match is a real time interactive artwork. It may seem hard at first, but it sure is worth the effort, as the sport is fast-paced and quite satisfying. I've also been playing the piano for 10 years now,

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and although my studies have made me unable to actively go to lessons, I still play in my free time. I also play a lot of board games with friends, and actively participate in national bridge tournaments.