

Already in elementary school I was impressed by the beauty of logics and mathematics, which was supplemented by informatics and algorithms later. I have always thought these two fields are related in numerous ways. Therefore, I have decided to occupy myself by these areas.

I have been participating in several mathematics competitions since the age of 9, regularly finishing in the top 10 in the country, often obtaining a place in the top 3. At the age of 12 (due to my previous results) I was selected to a talent camp organized by Lajos Posa which focused on combinatorics and the fundamentals of mathematical thinking. I am also very grateful to Mr Posa, who tutored me personally, giving me (and three other students) private lectures for several years. Due to his influence combinatorics has become one of my favourite aspects mathematics. The skills I have obtained (such as analytical thinking) has proven to be extremely useful in informatics as well.

During my high school years, I have been attending a mathematics-focused class, where we have 7 mathematics lessons a week. I have continued participating in several mathematics competitions, with outstanding results:

- OKTV (Hungarian Mathematical Olympiad For Secondary Schools): 2016 1st place
- Arany Daniel Mathematics Competition (OKTV for 9th-10th grade students): 2015 1st place
- International maths competition for ethnic Hungarian students (from 5 countries): 2014-2015-2016 1st prize for 3 times in a row.

Apart from these results I have been also solving problems from the Mathematical and Physical Journal for Secondary Schools (KoMaL), ranking 2nd in 2016 in the "B" maths competition.

Due to my results I was invited to attend biweekly the trainings of the Hungarian IMO team (held by Sandor Dobos), as well the summer and winter preparation camp, the latter one together with the UK squad. In 2016 I had the opportunity to represent Hungary in the Middle European Mathematical Olympiad, where I was awarded a gold medal (with the highest score in the Hungarian team).

I have started to learn programming in high school. Even though (regarding competitions) I was concentrating on mathematics, in 2015 I have completed Harvard's Introduction to Computer Science course via edX, where I was introduced to the fundamentals of algorithms and also the basics of C/C++, HTML, PHP, JavaScript. As my final project I have developed a web site, where the user can plan a sightseeing trip. You can upload sights to a database which later can be selected by the users and be used to create a sightseeing trip (<https://www.youtube.com/watch?v=Azhj1QJ75Gk>).

During my student years I have also developed an interest in English. I successfully acquired an advanced language exam in 2015 (ECL, C1). I have also been working hard to develop my language knowledge to avoid any difficulties while studying in the UK.

As I have been spending more and more time studying mathematics and computer science I have been fascinated by these subjects. In my future I would like to study, research and work in areas which unite these fields. During my time I have spent in talent camps and preparations for competitions I have had the opportunity to work with talented students of

my age. Working together with them taught me to solve problems in teams, sharing my results and to rejoice the successes of others.

Apart from mathematics and computer science I have also developed an interest in Physics, resulting 19th in the Hungarian Physics Olympiad (OKTV). I have been swimming for 12 years, and I also like table tennis, squash and skiing.

During my university years I would like to study and research in an inspiring and highly competitive environment. I would like to deepen my knowledge in fields which require high understanding of both mathematics and computer science, such as artificial intelligence and data science.