

I was introduced to mathematics at the early age of 8, when I started attending maths competitions. I was fascinated by the tricky solutions and ideas that were used to solve difficult problems. A few years later, I started coding with the help of my brother, which gave me the same feeling as the first maths problems I solved. That is why I decided to dedicate my time to these subjects and to apply to Computer Science.

Due to my great competition results, I was selected to attend multiple talent camps from the age of 9 held by Lajos Posa, Peter Juhasz and Erika Jakucs. Here, I met my peers who had a similar interest in problem solving as me. We were taught how to work together in groups to tackle difficult topics. I thoroughly enjoyed learning about how different ideas connected and formed the basis of mathematical thinking. I particularly liked exploring concepts in discrete maths. Areas such as combinatorics, graph theory, and game theory became my favourite aspects of mathematics. The critical and analytical thinking I have learnt has greatly helped me not just in maths competitions, but in programming and at other school subjects as well.

I decided to spend my high school years in a mathematics-focused class, where we have 7 mathematics lessons a week as well as regular extracurricular activities. I have also been attending maths camps monthly held by prestigious teachers from all over the country. I started programming in the second year of high school and participated in various coding competitions.

During high school, I took part in several Mathematics and Informatics competitions with great results. They include:

- Mathematics OKTV (Hungarian Mathematical Olimpiad for Secondary Schools): 1st place in 2021
- Informatics OKTV: 23rd place in 2021
- Arany Daniel Mathematics Competition (OKTV for 9th and 10th graders): 2nd prize in 2020
- International maths competition for ethnic Hungarian students (from 5 countries): 3rd prize in 2019

I have also been solving the monthly KoMaL (Mathematical, Physical and Informatical Journal) problems where I ranked in the top 10 in both Informatics and Programming in 2021.

Due to my results, I was invited to take part in the biweekly training sessions of the Hungarian IMO team held by Sandor Dobos where we discuss IMO/MEMO/EGMO problems. I have also

been participating in IOI training sessions held by Laszlo Nkhazy where we solve problems from IOI and CEOI together. This year, I also attend the coding lessons of Alphacademy held by Laszlo Nkhazy and Agoston Weisz, where we learn about fundamental algorithms and data structures. I also spend time participating in online competitions from Codeforces where my ranking is “Expert”.

I have successfully completed an ECL C1 language exam in English. I have also been reading articles about Mathematics and Informatics in English developing my scientific vocabulary. Even though I have not participated in sports competitions I really like them as a hobby. I especially enjoy biking, playing volleyball and swimming.

I am applying to Cambridge to learn more about Computer Science and Mathematics in a competitive and inspiring environment. I have always been excited about modelling and solving complex real-world problems using computers. I am interested in using mathematical ideas to develop ever more performant algorithms. That is why I believe Cambridge is the best place for me to continue my education.