My engagement with Maths goes back to nursery school, where my favourite pastime was to multiply two-digit integers. Growing up I had great teachers, who supported me in every possible way. Maths has always been the core of my life, I love it for many reasons: it is logical, pure, interesting and beautiful; and it stays true forever. Solving problems makes me improve, push my limits, and also gives satisfaction to me.

I took part in my first Maths competition when I was 7, and much to my surprise, I reached 1st place in the county. Ever since, competitions have always given me motivation to learn and to develop my skills. I usually reach the top ten nationally. I have earned two first places (2014, 2020) in the national Zrínyi competition. Along with 3 friends, we have won the national Bolyai Team Competition in grade 10. In 2019, I qualified for the Hungarian team participating in the Hanoi Open Mathematics Competition, where I reached an individual bronze and a team silver medal. In grade 11, I finished in 15th place in the National Mathematics Competition among grade 11 and 12 students. I have been solving the mathematical journal KöMaL's monthly problems for three years, earning 4th place in my category this year.

My thinking was greatly influenced by talent camps led by Lajos Pósa. In these camps, I was introduced to many problems and methods of solving them, including graph theory problems such as Turán's theorem, and finite and infinite Ramsey type problems. These camps have developed my skills in creativity, logical thinking, and problem solving. Listening to Mr Pósa's stories, such as Cantor's creation of set theory, made me realise that I would like to delve deeper into Maths in the future. Mr Pósa became a mentor to me, giving one-on-one sessions, where I found solutions to problems such as Pick's theorem or Fermat's little theorem. Besides mentoring and competition preparation I do in my school, I have also volunteered in these talent camps for 4 years as a student teacher. I also participated four times in the annual MaMuT camps organised for the best students in Hungary, where we study some fields of Mathematics in-depth, e.g. game theory and topology this year. For two years I have attended the biweekly Olympic training sessions held in Budapest. In 2020, I participated in Maths Beyond Limits, where I heard many interesting lectures on topics such as probability theory and projective geometry. Every week since March I meet with an Assistant Professor from the University of Debrecen to discuss topics in English that are not covered in my school curriculum, be it multivariable calculus, differential equations or linear algebra. As I read Introduction to Linear Algebra by Serge Lang, the field grabbed my attention. I am amazed at how volumes of n-dimensional parallelepipeds can be calculated by a determinant. I love it when the solution is reached by translating the problem into another field of Mathematics.

I am currently developing my own geometry problem, regarding the minimum area of the convex hull of certain points in a plane, which have to satisfy a specific condition. It has already given rise to many more questions, which is another thing I love about Maths so much.

My hobbies include playing sports, chess, board and video games with my friends, but my favourite is geography, and anything related to it: maps, topography, travelling and learning about far-away places, cultures and cuisines. From ages 4 to 6 I had lived in the United States and I am fortunate to have travelled to 35 countries since then. I played football for ten years, often participating in national championships with my team. I learned music and piano for 6 years. I believe that the University of Cambridge is the best institution for me to further broaden my horizons. I am interested in many fields of Mathematics, especially linear algebra, which I would like to study intensively at one of the best universities in the world.