My interest in computer science started to develop when I joined the robotics study circle in primary school, where I attained both a solid understanding of basic elements of programming using a graphical environment, and a rush of motivation for learning more. I joined C++ classes, and the following year a problem solving algorithms study circle where I learnt many algorithms including ones on trees, dynamic, greedy, combinatorial, recursive, geometric and backtrack algorithms. One of my favourite applications was when we used Prim's algorithm on a graph of cities and highways to find a minimal spanning tree constituting the cheapest highway system in quadratic time instead of exponential.

I have always enjoyed solving mathematical puzzles and competing. Coming regional second in the Holenda Mathematics Competition in 2007 showed me I have a potential in the subject. I started to visit geometry extra classes, where for instance I solved linear equations graphically. I made national 2nd in the Arithmetic Competition, national 15th in the Kangaroo Competition and 7th in the county in the Varga Competition. Attending a study circle on algorithms helped me gradually become better and I finished 51st in 2015 and 17th in 2016 nationally at Nemes National Informatics competition. Being highly motivated to improve, I joined a study circle at the Eotvos University in Budapest on more complex algorithms leading me up to finishing 11th at the Informatics National Olympiad (2017).

In 2014, I joined Milestone Institute in Budapest, an advanced academic programme for high achieving students wanting to study in the UK, where I completed mathematics and computer science modules and had many one-to-one tutoring sessions. My favourite course was about probabilistic models, where I completed a Kalman filter project to make estimations more accurate knowing certain physical properties of an object. For example, a sensor measures the altitude of an airplane with some error. This filter uses new measurements and past knowledge (stored as normal distributions) to infer the most likely velocity and altitude of the plane. In the Engineering Lab classes, in a group of three, we planned, designed, and built a working prototype of a bicycle drawn lawn mower. Apart from these, I liked learning about graph colourings, Euler's formula for planar graphs and about advanced calculus.
In my free time, I learnt Android programming online at Udacity via making a weather forecast application. It made calls to a REST server, synced to a local database and followed the guidelines of Material Design. I learnt about different algorithms and efficient data structures at MIT Opencourseware such as AVL or binary search trees, and about Internet of Things and Arduino programming at Coursera where I experimented with circuits and sensors. I solved Project Euler and other algorithmic problems, and I read the book Fundamentals of Computer Programming with C#, which motivated me for more precise coding. I also enjoyed combining my mathematical and algorithmic knowledge in a university assignment on the Golden section search algorithm. I wrote a C# program searching for the mode of a unimodal function by scaling the interval of search by the golden ratio each step, yielding the mode to a specific precision.
I consider other activities also important. I play waterpolo four times a week and have matches biweekly. I did voluntary work there too, when I looked after children at a water polo camp. I play the

saxophone as a member of the music school's wind orchestra with which we give several charity and non-charity concerts. To fulfil my interest in finance, I am an associate at the Milestone Finance Club analysing stocks for investment.
The relationship and interaction between students and tutors I experienced at Milestone Institute appealed to me greatly. I would like to study in the UK because of its exceptional university education system and the high quality courses.