

## Personal Statement

### 2015, Computer Science, Churchill College

I have always been amused by Computer Science problems requiring creativity and novel ideas from me. Hence, programming became my playground where I could powerfully construct my visions. I started simple graphical programming at the age of 10. Two years later, I joined a special class for Mathematics at Fazekas Mihaly Secondary School, Budapest. My mathematical knowledge was established by numerous extra classes, workshops and camps complementing the 6-8 Maths lessons a week. Then I focused on Visual Basic, Pascal, C# and C++ and I expanded my skills with algorithms. Apart from these, I regularly attended extracurricular classes in CS and even an international Olympic training camp.

I was fascinated by competing in both Maths and Computer Science. At the 5-round yearly National Selection Contest for the International Olympiad in Informatics I got the 6th, then 3rd, then 1st prize (2012-2014). As a result, I was nominated twice to represent my country at the Central European Olympiad in Informatics (CEOI 2013, 2014: 9 countries, 40 contestants) and once at the International Olympiad in Informatics (2014: 91 countries, 320 contestants). I won a bronze medal at the CEOI 2014 in Germany.

On the National Olympiad in Informatics, I got 5th, 3rd, 3rd, 1st and 2nd prize (2010-2014, 1000+ contestants) while on the National Olympiad in Mathematics I was in the top 10 (2011-2013). In a monthly national competition focusing on complex problems and individual research (presented in the Mathematics and Physics Journal for Secondary Schools) I won the 1st prize in Mathematics both in 2010 and 2011 and the 1st prize in Informatics in 2014.

Informatics competitions are mainly algorithm-oriented: the hardest part in solving a task is decomposing it into subproblems that can be solved by known algorithms such as Dijkstra's or RMQ. After that point the implementation needs to be extremely precise.

I also enjoy responsible roles at national team competitions. At the two Mathematics contests I participated in, I got twice the 1st and once the 2nd prize (2009, 2010). In Informatics, I got the 1st prize in a JavaScript programming contest (2013), the 2nd prize in a C# project development contest (2014) and the 3rd prize in a 12-hour Android programming contest (2014). I also took part in the invitational Singapore International Mathematics Challenge (28 countries, 239 contestants).

As my hobby, I develop software in C#. In my projects the main challenge was the individual research work since such knowledge could not be gathered at the school. Examples include:

-PendriveSync (<http://bit.ly/1rHfwOJ>) synchronises multiple folders to removable devices quickly and easily.

-MovieShelf (<http://bitly.com/VR19M6>) is a feature-filled software for organising films in a searchable database including data from the Web. It has had 8000+ downloads in 2014 so far.

-Laser was a team project where my assignment was to calculate a route of a laser light influenced by several objects with different effects.

I felt the inspiration to pass on my knowledge to younger students, so I gave extracurricular lectures in Maths to talented 6th graders. Moreover, I co-organised a national team competition in Maths. I also tutored motivated students in algorithms. In my freetime, I like keeping active. I regularly go swimming or to the gym, and occasionally go on long-distance cycling and trekking tours to switch off for a whole day and focus on my thoughts while also training myself.

I am confident that my way to the future is studying at a highly competitive university amongst similarly motivated students in an atmosphere where cooperatively achieving your goals takes priority. I have always imagined success as leaves of a tree where most nodes are labelled "failure". I believe I have found a potential root of the most complex tree I have ever seen in my life - one that I am more than ready to traverse.