

The world of computers has merged with my own over the years, and my passion has continued to grow, whether building them, solving the subsequent software problems or the ubiquitous world of gaming. I soon moved on to modding games, and editing the files to “achieve” better results, but more for the challenge of being able to do so. At 15, I joined the computer science faculty to study IT to a deeper level. I started coding in C++, producing simple programs to carry out calculations and analyse vast tables of data. I took my Advanced-Level exam a year early and achieved the top grade (5). Soon after that, in my free time, I started on projects for android, studying Java on W3schools and Futurelearn as part of one of their online courses. This summer I joined Fablab, a programme initiated to explore the relations between the contents of information and its physical representation. As part of this, we completed a smart city project for cultural institutions around Budapest. Our prototype utilizes the API of both Twitter and Facebook, creating a “living interactive” advertising board to generate interest for establishments, such as museums and galleries. We achieved our goal utilising 3D modelling, design and printing, and the open-source Arduino circuit board and programming language.

Since primary school, I have thoroughly enjoyed the challenges embodied in mathematics, competing early on at national, albeit junior, level. My enthusiasm continued through to grammar school where I chose the natural science class, focusing on mathematics, biology, chemistry and physics, soon getting involved with the advanced mathematics group. Within the subject, logic, linear algebra and probability I consider to be my strengths. In 2014, I joined the Milestone Institute; a talent programme in English with university style academic modules. I studied subjects such as calculus, which helped me grasp the power of functions in data analysis by taking advantage of tools, including the Newton-Leibniz theorem for integral calculation. We also examined algorithms, such as Kadane’s algorithm for longest continuous subarray and many alternative solutions for sorting tables for optimised data analysis. I continued to be intrigued by mathematics, and what it can achieve. I appreciate elegant solutions and the satisfaction in solving complex problems that link both maths and IT such as the bioinformatics project I completed with my mentor on protein comparison. Here, we looked at Dayhoff’s PAM matrices, and Henikoff BLOSUM matrices for amino acid mutation probability, using them to find the lowest edit distance between two strands of DNA. The process of creating the algorithm then testing and executing it, I found especially rewarding.

During my studies, I explored, in a coursework essay, the use of artificial intelligence and its benefits in the online gaming community, focusing on massively multiplayer online role playing games (MMORPGs) and their requirement for social grouping and teamwork. AI, the area I would ultimately like to work in, is perhaps, the ultimate expression of human machine interaction.

Having successfully completed my ECDL test for computer literacy at 13, I started tutoring younger students in preparation for this exam. I also became an organiser at my school's annual “Fazekas Festival”, where we invited guest lecturers to speak on a range of subjects such as science, psychology and philosophy. I studied music theory and the piano for 4 and 6 years respectively. I also enjoy squash, and hiking, both which I am very passionate about. I attend the Common Sense Society, a group that “exists to promote civic engagement and the ideals of

responsible liberty”, debating topics such as the recent discussion on Allan Bloom’s “Closing of the American mind” .

I consider the UK to be the gateway for European talent, together with some of the best computing courses and top universities worldwide.