

I fell in love with space travel when I saw a Space Shuttle launch around 10 years ago. Having been the curious person I still am, I started reading about the subject, and the engineering challenges behind these space programmes fascinated me. As I learned physics and chemistry I got a better understanding of these problems. The space sector is expanding rapidly nowadays, therefore, I think there is place for me to become an aerospace engineer and help overcome these challenges or even fulfil my biggest dream and become a part of the team that puts the first human on Mars.

I attended math competitions every year in elementary school. Then I got into Fazekas Secondary School, where these competitions are viewed as fairly important and students can get extra support from their teachers to prepare. With their help, I was able to achieve some great results mostly in physics.

I am proudest of my first place in the physics problem-solving competition of the High School Journal of Math and Physics, where we had to solve several problems every month. I also finished ninth in the National Physics Olympiad. It was a three-round competition, where the first two rounds were theoretical and the final round was an experimental task.

In 2018 I was selected to represent Budapest at the International Olympiad of Metropolises in Moscow. This competition was different from the others I had attended. The main difference was the focus on teamwork. There was a Blitz contest where the whole Budapest team had to work together to solve the tasks and also the experimental part of the main contest was done in pairs. I came home with a bronze medal.

Due to my results in competitions, I was invited to a summer camp organised by the Wigner Research Center for Physics. They wanted to present the everyday work of a physicist or an engineer to the students. I chose to work together with Pál Gábor Vizi (a developing engineer for the Department of Space Physics and Space Technology) on a project about communication in space. We assembled and programmed a remote controller to turn a projector on every morning and turn it off every evening for an exhibition using equipment that was used to build actual spacecrafts. On the last day, we had to hold a presentation about our work and about the things we had learned. The Director of the centre liked our presentation so much, that when Johann Wölker, the Director General of the ESA, came to visit the centre we were asked to talk about the camp and our project for him and other ESA delegates.

My relationship with the research centre did not end after the camp. We formed a team with the students and signed up for the Beamline for Schools Competition. It is a global competition where high-school students have to design an experiment for a particle accelerator and the top ten teams get invited to conduct their experiment in CERN. We were allowed to use the Wigner Center's equipment to build a scaled-down version of our experiment. My role in the team was to design and build these tiny models.

When I was younger I used to spend a lot of time in my grandfather's workshop. He taught me how to use tools and I started creating my own projects. The first of these was a number five cut out of wood for my brothers fifth birthday. I have come a long way since and my current projects revolve around electronics. My largest creation so far is a controller for

computer games. It is a box with switches, buttons, LEDs and a slider connected to the computer through an Arduino. When I started creating the design, I had almost zero knowledge in the area of electronics and programming, but with the help of my teachers and the internet, I was able to acquire the knowledge required.

In the last couple years I tried to work towards my dreams and studying at a prestigious British university might be the most important step towards them.