Hello, dear sir or madam. My name is Zijian Wang, a grade two student from Northeast Yucai School in Shenyang, Liaoning Province. I am a Yingcai Project student with mathematics as my orientation.

For me, mathematics, with its abstractness and logics, is where my passion lies. Born curious, I have decided to make mathematics my career once being impressed by the beauty and symmetry of modern algebra results such as the Yoneda’s Lemma and the Yang-Baxter Equation. I am particularly in favor of studying extracurricular mathematical knowledge and skills in my spare time, especially algebra and metamathematics. Besides, computer technologies are also fascinating to me. To be more specific, I enjoy writing computer programs and utilities with makeshift technologies and exploring brand new discoveries. For instance, I once wrote an automated bell program using the mathematical principle of modular arithmetic called Beep Tweakable to indicate class’s beginning and ending during the epidemic period when students had to study at home on the Internet. Besides, I am keen on reading research papers about mathematics and computer science as well.

With detective novels as my favorite literature form, the problem of deduction and reasoning draws my attention colossally. Associating the newly developed category theory, which is one of the major advances of mathematics in the twentieth century and computer technologies, I recently have conducted a project named DefQed, which is amid the first approaches of applying the abstract category theory principles on the practical field of automated deduction. Additionally, the algorithm has the functionality of improving the deduction performance itself through a learning procedure which is executed after each time of deduction, which makes it capable of combining flexibility and efficiency in one single algorithm.

I have written a program with the same name in C Sharp and have released three versions of it. I still remember the period of debugging a showstopper level bug which makes the algorithm unable to detect the termination of the reasoning process. It was almost twelve hours’ debugging that fixed the problem and produced the first ever working version of the algorithm. The source code is publicized under the revised BSD license on GitHub, allowing anybody to view, analyze and modify. The program can run on a great quantity of operating systems and platforms utilizing dotnet’s multi-platform capacity. It is still under active development and perfection.

I am also writing a research paper about the project with the newly learnt skill of latex and the composing is nearly completed. Through the process of conducting the project, I have learnt an enormous number of new viewpoints and knowledge, including new mathematical theories, such as the fundamentals of automated reasoning, new computer skills like managing references of an article using the software of Jab Ref and writing a paper in Tex Studio. I have also learnt new academic capabilities such as the formal structure of a research paper and what the familiar word of SCI, which I thought was the abbreviation for journal Science instead of an index for scientific journals, actually means by.

In my opinion, conducting scientific research on a topic in hand is the most nontrivial and fantastic method of acquiring a deeper understanding about the topic. Only through experimenting new ideas with mathematics and researching aspects of mathematics could one broaden his horizon on the subject or even contribute bits of knowledge to the subject.

I would definitely appreciate it if I can get the valuable chance of attending the World Laureates Forum’s Sci-T conference. Thank you for patience and time to take me into consideration.