Personal statement

From a very young age the aspect of studying that I enjoyed the most was solving problems. Because of my high motivation and the support from my parents and teachers, I was able to finish elementary school a year earlier than usual. Since I was thirteen I have been participating in math and science competitions with various degrees of success. At the time I finished my secondary studies, it was said that studying math would lead to fewer career possibilities than other sciences or engineering. In spite of that, I chose to pursue a math degree because it was what interested me the most.

Currently I am mostly interested in the connection between logic, discrete mathematics and complexity theory, but my first interests were in the foundations of mathematics. Shortly after my math studies in university began, I discovered the fact that some important theorems require the Axiom of Choice to be proven while this same axiom allows for counter- intuitive results like the Banach-Tarski paradox. This was puzzling to me. You even need weak forms of this axiom if you want to show that various different -and seemingly reasonable- definitions of finiteness are equivalent to each other. From there on I started studying mathematical logic and stumbled upon computability theory. These topics, as well as others that also interested me to a lesser extent, like non standard analysis or categorical logic, were not taught to me during my Bachelor's degree, so what I learnt about them was mostly through self-studying.

It was not until my master's thesis when I could do research related to logic. My supervisor, Marc Noy, introduced me to the field of finite model theory which is of a fairly different nature from that of the logic I had studied up until that point, but it was equally interesting to me.