

Academic Purpose Statment

Please write with a maximum of 600 words, in the language of instruction where you are applying to. You should motivate the answer by reasoning around the following:

Your choice of countries, universities, courses and their connections to your current studies and future career.

My interest in chemistry and math made the chemical engineering program at Uppsala University an easy choice for my university program. Since I started studying my interest in chemistry has grown even stronger and I am constantly finding new areas I want to explore, not only in chemistry but also in other scientific fields. One of these areas is computer science and with its fast development I think it's important for a researcher to understand how computers work. But my greatest passion is polymeric materials and in the future I hope to do research on biodegradable polymers.

Studying at Uppsala University really is amazing and I have learned a lot, not only from the courses I have read within my program but also from extra courses I have taken, like computer science and math courses. Unfortunately, Uppsala does not have everything. The chemical engineering program makes it difficult to study an additional subject without missing many obligatory lectures and the university only offers one course in polymer chemistry.

The option to take an exchange year would not only give me all the benefits that comes with it, like making international contacts and friends, but it would also let me solve these problems. The universities I want to study at all offers courses in both polymer chemistry and computer science allowing me to truly develop in these areas.

My first choice is National University of Singapore, which offers an impressive amount of courses in Polymer chemistry like Advanced Polymeric Materials and Polymer Processing Engineering. Being able to study there would mean I would get the possibility to specialize in this area and really increase my chances of working with it in the future.

My second choice, Nanyang Technological University, also offers courses in polymer chemistry but also allows me to take a minor in Computer and Data Analysis. This would give me more knowledge on how computer science work and how to use computers for my future research while at the same time study chemistry, which really would be valuable for me.

These two universities are also two of the highest ranked universities in the world, number 13 and 14 for chemical engineers and number 20 and 17 for computer scientists according to the list Academic Ranking of World Universities. Being able to study there would be a great privilege and will certainly enhance my skills as a chemist and as a computer scientist.

My next three universities are all in Japan, a country which has always been in the frontline of the scientific world. This is also true for material development and I have read several articles from multiple Japanese researchers regarding everything from the usage of metallic glasses to the synthesis of biodegradable polymers. It is natural for me wanting to go there and learn about their way of doing research. The courses I want to read at these universities are a mix of material, computer science and Japanese language courses. I strongly believe it is a great investment to learn Japanese considering the amount of research that is going on in Japan. Some of the courses are also great project courses like the Individual Research Training at Tohoku University and the Chemistry Laboratory course at Nagoya University. Both of these will be very useful considering I want to do research in the future. They would also teach me about Japanese research and laboratory work, something I have heard many positive things about.

Overall an exchange year would be invaluable for my future as a chemist and computer scientist. It will be an adventure that I can not miss!