Motivation of application

why you are interested in this particular Doctoral student-position and project?

I am currently studying the 2nd year MSc in Maritime Engineering (Joint Nordic Five Tech Programme) at KTH, in which I have completed my 1st year Marine Technology study at NTNU, Norway.

During my 1st year study, NTNU provided me a rich learning experience in Marine Technology. Courses such as Underwater Technology expanded my horizon in deep sea view, in which I learnt the working principles of underwater vehicles. Furthermore, acoustic theory as well as optic theory were elaborated during the lectures, in addition, underwater navigation and positioning as well as sonar theory including side-scan sonar and multi-beam echosounder were also lectured, which provides me a comprehensive overview of underwater perception. Other than that, the field trip was conducted in Skogen wreck site where M/S Helma might be burnt and buried. During the mission, seabed survey using AUV as well as visual observation using ROV were both carried out which helped me gain a great deal of practical experience.

As for the machine learning aspect. I obtained such experience during this summer in Peking University (China). It is a summer campus where students from all over the industries were gathering together to solve problems with the enhancement of machine learning. In the summer campus, I did a project related to robotics. The goal of the project is to make the Robot Yanshee dance as human’s wish, in which computer vision as well as deep learning were employed to do so.

This doctoral project regarding Machine Learning for Underwater Robot Perception seems attractive to me. I knew that I might still be a bit fresh to this topic, but I would never stop recharging myself with keeping my eyes open. Curiosity and Creativity are always my best friends. Studying in this diversified environment will always provoke me to move forward.

### what you think you can contribute with to the project and the research group.

Currently I am a student in marine field, with knowledge in underwater technology as well as machine learning. I am eager to apply theory into practice, and I have gained a well-round academic performance through my 1st year study at NTNU. Studying at two universities which enhances me an extra opportunity to collaborate with more potential research labs as well as professors.