Interview questions

Tell me about yourself?

* Currently, final year of Nordic master student, specialize in small craft, particularly in underwater robotics, (ROV, AUV, UUV etc.). This specialization enables me to be exposed to a world of underwater sensing technologies as well as manoeuvrability of underwater robotics.
* At present, I am taking several courses regarding DSP as well as applied programming in C, I believe that they will definitely pave the way for my master project, and possibly also beneficial to this Ph.D. position as well.
* My master’s thesis topic is signal processing of underwater beacons, key component for LBL (long baseline) underwater navigation and positioning system. It engages me to obtain some hands-on experience in hardwares as well as signal processing techniques. Hopefully, I will accomplish this project by next May.
* At this stage, I mainly focus on my courses
* Before I came here, I was studying at NTNU, Trondheim. That experience really solidifies my aspiration of doing a Ph.D. after my master study. I was also taking several professional courses, such as marine electrical systems and underwater technologies. They both inspired me a lot.
  + I was actively interacting with professor Medhi, who is also one of my referees, he inspired me in doing research in the field of autonomous shipping.
  + I really feel appreciated of the course underwater technologies,
    - I gained fruitful hands-on experience in
    - gained fruitful hands-on experience on electronics and the field trip was conducted, it was carried out in Skogen, we did operate the AUV to detect the expected area and collect acoustic images. Those experiences are quite valuable to me. It stimulates me to pursue further in the academic path.
* Right before that, I went to University of Strathclyde, that is place which expanded my horizon a lot, although the duration was only six months, I benefited from both academically and personally, I experienced Scotland culture, food and accent as well.
* Prior to that, the bachelor’s experience in China gave me a strong foundation and general background knowledge in marine field.

High-tech guy, always love latest gadgets, play around and fix problems. Enthusiastic attitude towards AI, that is the reason why I did take the summer campus training programme at PKU.

Sporty guy 🡪 pingpong, taekwondo, skiing, hiking,

Passionate boy 🡪 never say give up, I will manage to achieve something I think I should achieve.

Why Ph.D.?

* I have been enjoying my academic work so far, and I feel exciting with conducting research, I also feel energized in an academic environment, which has been proven by my strong academic performance to some extent. In other words, it fits me, I chose this project is because I would like to devote in this field, and a Ph.D. like this position will definityly sharpen my understanding in this field.
* It can help me dive to the depth of knowledge necessary to become a strong contributor to the field of autonomous marine system. I also want to achieve something significant, to improve myself, and also to satisfy my intellectual curiosity, to discover, and knowledge for a better world.
* For instance, some master project might have thoughtful questions after the main task, which are quite provoking, and some of them are related to the lastest research, such as one question in underwater technology, question regarding how machine learning could enhance the underwater perception, I did think of that for a long time, combining the experience at PKU, I thought that probably it might lift up the underwater optical sensing way, since the image resolution might be improved if ML is applied, another way, that there is one Ph.D. is doing now is the hyperspectral technologies, which makes use of the spectrum analysis.

What do you do after Ph.D.?

* I think my Ph.D. project can open up new lines of inquiry for this field, so I would like to take this golden opportunity to build up the strong foundation for my fruitful research career. I think there will be a wider development opportunity included in this doctoral programme, I want to work inside adacemia, but still want to keep other options open, such as independent researcher.

What are strengths?

I believe that my strengths are the fact that I have several hands-on experience in practical sensing technologies, in terms of both hardware commissioning as well as algorithms implementation. (such as TVG, i.e. time-varying gain). Also I have a big picture of signal processing systems including theoretical background and problem-solving skills

* My existing academic and professional work demonstrates my dedication and attitudes. I think this will help me manage the weight of information my Ph.D. research needs to cover and challenges of producing an effective thesis.
* PKU experience highlights my motivation and enthusiasm in new high-tech field, and also motivated attitudes towards cutting-edge technologies
* DC-DC power converter shows that I am comfortable in working with electronics, which might be the building blocks for developing additional sensors. Sensor integration systems
* Used to have some forecasting model on the position estimation for AUVs in terms of dead reckoning, but the drift error is a bit obscure, accumulating with time.
* Possibly good communication skills if you agree on that
* Discipline & determination
* I always love learning new things with positive attitudes,
* I have enough patience to solve problems,
* Strong work ethic,

What are your weakness?

Less aware of sensor fusion, possible way of improving it is taking online course, udacity, nanodegree in sensor fusion. I often make use of the online resources to enlarge the skill set. Also, probably communication skills, how to present ideas to other students if I will be involved in a 4-year Ph.D. programme with teaching requirement. I believe that the Ph.D. training also provides me with that skills.

What are your skills

* Job-related skills
* Transferrable skills
* Adaptive skills

Q : why are u choosing this particular project?

* I am passionate about sensing technologies, which act as eyes and ears for us to explore our world. I am also keen on smart maritime, particularly the autonomous marine systems attract me a lot, and I think that I do have a relevant qualified experience, so I did apply it, I did say that I would definitely go for a Ph.D. project rather than find a job.
* I have enthusiasm reading through your papers

Q: what difficulties do you expect to encounter during?

* There should be lots of difficulties,
* Sensor fusion, interaction, noise erosion. Sensor interaction happened in our project,

Q : what would you. Like the impact of the project to be?

* Provide satisfactory quality of input data, for a further decision support system,
* Pave the wave for the achievement of full autonomy marine systems

Q : what can u bring for the research group?

Q : why do you want to do at NTNU dept, ocean operation and ?

NTNU itself is the top university in maritime field, and department of ocean operation and civil engineering is also a well-known leader in the autonomous operation field.

Q :

Master thesis

PKU experience