The IoT is an emerging field in the 21st century that revolutionize human life. Obviously, there will be a vast world for those concentrating in communication or network to show themselves with the increasingly fast development of the IoT. Seeing the numerous opportunities for people to make a change in this field, I hope to be one of them making fruitful achievements.

To achieve that goal, I learned with my best efforts in most courses, so that my cumulative GPA is 89.5/100 for the first three years; while from the mathematical modeling competitions and course projects I participated in, I grasped essential research and teamwork skills, which supported my later experiences as a research assistant.

High Robust Indoor Positioning System Based on AOA was my first research at the Dalian University of Technology. Thanks to my former competition and project experiences, I could find proper methods from a large number of papers easily. By learning from the methods for reference, I modified them to make them useful in the research, and helped achieve the accuracy of the ArSeRoL system, the new type of indoor positioning system via Wi-Fi signals, to 40 cm. Encouraged by the achievements I made, I became more determined to pursue my next research.

In the research *A Data Backhaul Method for Low-power Ocean Sensing Data (Multi-hop LoRa Network)*, I have already got familiar with my supervisor and other members and cooperated smoothly during that research. My main duty was to implement the functions proposed by my senior. When encountering the restraints of hardware and the specificities of LoRa signals, I would communicate with my senior proactively for whether we should modify or delete the functions; Every time one of us came up with new ideas, we would also determine together whether to implement the idea based on the requirements of the research and the characteristics of LoRa. As a result, we established a new type of LoRaWAN mesh networks with functions that we were all satisfied with.

As for the most recent research *LPWAN-based Patient Tracking & Alerting System Facing COVID-19 Pandemic*, we are inspired by the BeepTrace system at first, a system based on smartphones with high hardware requirements. A challenge for us is to create a new system with a low price, low energy cost, and small volume. In response to the challenge, we transplant some of the client-side functions to region servers and apply the LoRa. Considering the side-effects of LoRa and the limitations of the simple hardware of mobile devices, we design a communication protocol to make sure every trace is recorded. This research is still in-progress currently, and is expected to achieve what we plan to realize.

I choose ETH Zurich since I love its intense academic atmosphere and rich research resources. ETH Zurich offers many high-level academic lectures each year, allowing students to listen to and communicate with the top scientists, as well as chances to touch the best scientific research achievements. Moreover, its ETH-Bibliothek is the largest library in Switzerland and the center of scientific and technological information. Thus, I believe studying at ETH Zurich can provide me with an ideal atmosphere to focus on developing advanced network technologies and other computer science and translate research results into practice.