**Research Plan**

As technology advances, people spend more and more time on the Internet. The Internet has become an indispensable part of life, which makes the security of network transmission so important. In my summer break of fourth year, I did some research about secret sharing. And I found out that not only Shamir’s Secret Sharing exists, but there’s also Blakley’s Secret Sharing, Counting-based Secret Sharing, and Matrix-based Secret Sharing. Among them, there’s also methods for picture, like Visual Secret Sharing. Or for audio, like Audio Secret Sharing. I find some interest in this field and want to dig more to explore its potential on the Internet.

In my study of *Secret Sharing with Multi-cover Steganographic Audio Files*, I explore the Secret Sharing and Steganography. During the research, I found a paper talking about steganography with LSB in picture. And it claims that this method is really fragile. Because the pixel in the picture would be similar to its nearby pixel, and the LSB of the pixel would similar to its nearby LSB, too. However, is that real? If a picture was mixed with noise or compressed, would the claim still be the same? And as for the sound, does this problem exist? I’m so excited about it and want to find out the truth.

Meanwhile, I’m curious about information security. I taking a class called “Secure Coding in C and C++” this semester. I’ve learned a lot of knowledge, like the problem caused by Buffer Overflow. And I would also learn about information security in my remaining time in college.

**Study Plan**