When I began looking for a mentor in the summer, I knew that I wanted something engineering related. However, I didn't really have an idea of what field, or what problems needed to be solved. When I was emailing possible mentors, I was looking at their websites to see what they are researching. I came across Dr. Pavlidis from the UConn Mechanical Engineering research page, where it said that he focused on microelectronics and thermal management. That field sounded interesting to me, so I emailed him, and he said that he would be interested in mentoring me. We connected for the first time in a virtual meeting, where we got to know each other and went over possible topics. We settled on a topic that would work for me with my schedule.

One of the main key moments that occurred during the development of my project was when I discovered the value of using smart spreadsheets. At the start, I was calculating with large formulas one calculation at a time. When my mentor suggested that I use spreadsheets, I was thinking that it was going to be hard because I want to be really familiar with them. Once I decided to use a spreadsheet, it instantly calculated the data for multiple data points, and graphed it, making the process more efficient. Time management and finding time to work on my project was never really an issue for me because I was interested in my project. I dedicated a lot of time after school and after hockey to work on it, and one of my challenges was actually saving time to do my actual school work.

My communication skills evolved throughout the year because I began sending him emails and communicating with him earlier, so he had more time to reply. During challenges, I advocated for myself by asking him what else I need to do, so that I have stuff to do throughout the week. I also asked him a lot of questions if I was stuck on a concept that I didn’t understand.

It felt really good to present my work publicly, because in those moments, I felt like I was the expert, and I was the one teaching things to people. This was one of the few moments where I felt I was teaching others. While I knew that some of the students were asking about my poster for their extra credit assignment, I knew that some adults and other mentors were genuinely curious about my poster. A memorable moment while I was presenting was when an adult asked

for an overview, and then he asked a genuine question specific to the science behind my project. He was really the only one who might have done related work in the same field that I was in. That overall experience of explaining my project to someone else in that field made me feel like I was bringing something new to the table, because he said it was really cool. At first, I feel like nobody really understood my project, but I then realized that my project it's important and it does have value.

I definitely made the most of my ARM experience, especially since it was my first time ever doing real research. If I could do ARM all over again, I would try to come up with my own project, or idea. For my project this year, my mentor came up with project ideas that I can pick from. If I could have done this all over again, I would have put more effort into creating something on my own. In addition, I wouldn't have completed the Connecticut Science and Engineering Fair. This is because I felt like it rushed my project a lot, especially since I was working on it during hockey season, and my project didn't really feel ready. Luckily I used the time after CSEF to add the last pieces to the project.

The ARM experience has influenced me to try and pursue research in college. I've started taking research into consideration when looking for colleges, because I liked working on something that made me feel like I'm actually contributing time to STEM.

Advice that I would give to incoming ARM students is that you should not be taking ARM as a GPA boost. The value of ARM does not come from having a higher GPA, it comes from the experience that you gain from it. Therefore, if you want to take ARM for a GPA boost, then I wouldn't recommend doing it, because going through the motions is not fun. Instead, I recommend finding a mentor that does stuff in an interesting field that is relevant to your interests, and really get into your project.