My contribution for the Heads-Up Display project was largely software related. The biggest thing that I completed for my team was designing, architecting, and implementing the back-end Bluetooth server and parser utility. This allowed other members of my team to send over positional data that could be displayed from our projector. This was done in python and took quite a bit of work to get running smoothly. For example, the graphical user interface (GUI) that we decided on was created using a library called Tkinter. Tkinter needed a large amount of resources to operate quickly so I designed a threading scheme to allow the GUI to refresh faster. However, this did not make the final revision as we found some bugs that were causing Tkinter to slow down and crash. Being one of the two members of my group with real life software engineering experience helped me greatly by giving me a greater insight into industry best practices and clean code. Something else I contributed was starting to design unit tests for our code so that we could accurately change our code base without having to worry about the effects of ‘code-rot’ or unintended consequences. I think overall my biggest contribution to the team was helping to split our code into classes. This allowed us to reference the public methods within our classes while hiding the more sensitive methods that could become dangerous if called at the wrong time. Public and private methods/classes was a huge emphasis of my last internship where I was taught to code as a professional developer. Our project needed a clear and cohesive architectural code structure if it were to be marketed as a real and viable product. I think that I provided that structure thanks to the experience and knowledge the University of Akron helped
me obtain. I am forever grateful to the mentors and leaders at the University who poured into me and helped me excel not only as a student but as a future worker.