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Honors Contract Reflection: Apogee Internship

9/23/17

I received the opportunity to work as a research and development intern at Apogee Instruments here in Logan from May 2017 through August 2017. This was an excellent experience and added a lot to my progress in pursing my educational and career goals.

Apogee Instruments is a company that designs and manufactures environmental sensors used on weather stations, in agriculture, and in a variety of other applications. Their sensors provide research-grade measurements of air temperature, soil temperature, short-wave and long-wave radiation, precipitation, to name a few. While working at Apogee Instruments, I was able to help with data collection, processing, and analysis. Because I was working in the research and development department, the experiments I was involved in were primarily focused on ensuring that the prototypes were functioning properly. My supervisor and I would design an experiment that would answer important questions. I would often get to do some “hands-on” work with physically setting up the experiment. I also learned how to program the dataloggers that would collect the data from our experiment. After the experiment was finished, I would collect and clean the data and analyze the data in MATLAB according to directions from my supervisor. My analyses mostly consisted of performing linear regression and different visualizations of the data. The last step usually involved preparing a summary of our findings in PowerPoint which I would present to my supervisor and/or other employees.

Working in this internship helped me prepare for a future career in statistical analysis. I would like to eventually work in a position that requires science-based statistical analysis. Working at Apogee Instruments gave me experience working with raw data collected for a scientific purpose. It required creative thinking as my supervisor and I discussed the data and used the analyses to understand how our sensors were behaving. Solving problems in this context was very different than in the classroom. Oftentimes when I have been presented with a problem in the classroom the method to solve is has been recently taught or reviewed. However in an applied field, it is the researcher’s job to not only define the problem, but to pick which method(s) will best solve the problem. This internship also helped me in more general areas such as increased confidence in a professional environment and learning how to learn by myself.

Mark Blonquist, my mentor, was great to work with. He helped me get up to speed by explaining very clearly what I had to do and why I needed to do it. I learned the value of knowing the ‘why’ behind a project. Having the big picture clarifies many of the small steps to complete a project. He has become a valuable mentor as I worked at Apogee Instruments. I have been able to learn a lot from him about the research process, as well as general professional skills and communication practices. He has also been able to give me advice about future careers and graduate school.

This internship was a wonderful experience that allowed me to apply my academic knowledge in an specific field and learn from the examples of skilled professionals. The things I have described will be a foundation upon which I can build my academic and professional careers.