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Internship Report

EverPower is a developer, owner & operator of utility-scale wind projects across the United States. They currently own six windfarms in Pennsylvania, New York, Illinois and California, which generate a total of 752.25 MW of power a year. This summer, I was an intern in the Operations department under Kevin Wigell, the Regional Asset Manager, whose duties involved the management of the operation of the windfarms in Pennsylvania and New York. Each windfarm has wind turbines built and maintained by different manufacturers. Every day, there is maintenance being performed on some of the wind turbines or other electrical equipment. Reports are generated by the maintenance crews sent by the manufacturers and EverPower uses a Computerize Maintenance Management System (CMMS) to keep track of all the maintenance done on each windfarm. But the reports are generated in either Excel, PDF or HTML formats and cannot be directly imported into the CMMS. The reports are not consistent with information, varied by manufacturer and could not be uploaded into the CMMS directly. This made it very difficult to enter the large amounts of reports being generated on a weekly basis into the CMMS.

And so, my main project for the summer was to write a program that could convert the many different types of reports into a uniform output that could easily be uploaded into the CMMS. The program needed to read information from each of the different types and formats of reports, identify the information necessary, process and write this information as records into an Excel file that could be uploaded into the CMMS. Additionally, the program had to perform validation checks to ensure that all the information retrieved from the reports is in the right format and flag records with invalid information and write these into the output file in a separate tab to be examined for the errors.

I gained invaluable experience from working on this project and interning at EverPower under Mr. Wigell. The program was written in C# and I was able to use the knowledge and programming concepts that I had obtained from the classes I have taken. I learned more about the language in particular and how to develop algorithms that would work best for the large amounts of data that were being parsed by the program. I had the chance to apply time analysis to the algorithms developed to improve the run time of the program. I was also able to learn about database management and how a maintenance management system worked specifically.