UVU Wind Turbine Inspection via Autonomous Drone

Interview

An interview was conducted with Joshua Zander and Angel Rodriguez to discuss the creation of a database to use at their jobs. They are working in the USHE-funded UVU project of developing wind turbine inspection via autonomous drones and machine learning. The database must contain information related to the wind turbines inspected. Specific details shall include things like the wind turbine’s locations and specs, different drone missions performed with which drones, results from different machine learning models with their relative pictures and how each of those pictures relate to the specific parts of which specific turbines. The machine learning models will have results indicating if there is no damage detected or the severity of damage in a specific image.

Final Report

Overall, my experience creating the turbine\_inspection database was positive. It helped me get familiar with expectations of the real world and that you will not get it right the first time. The challenge was determining the best E-R diagram design since I kept making changes after I thought I was finished. Writing queries helps determine if I did my E-R diagram reasonably. I probably went back and changed my diagram after already generating tables at least 12 times. I also appreciated that the assignment allowed me to pick a topic of interest and that I could potentially use as the rough draft of a database that will be used for the UVU project.