

7/25/2022

To Whom It May Concern,

During my tenure as a Research Electrical Engineer at ERDC-CERL in Champaign, I had the pleasure of having Jessica Nicholson as my research assistant for the Spring 2022 semester. Jessica and I met on a weekly basis to discuss the research that she completed independently. A typical meeting was entirely motivated by the work that she would uncover and present to me and the rest of my team.

Our initial ask of Jessica was to research a suite of tools offered by the National Renewable Energies Laboratory. This led to a detailed study and report on resilience and robustness metrics. Her intellectual curiosity and determination repeatedly led to meetings that expanded the knowledge base of the team. It is also worth noting that her background as a mechanical engineer brought diversity to the team's academic background, of which was composed primarily of electrical engineers.

The research avenues that Ms. Nicholson chose to pursue included integrated systems, reliability factors and standards, and infrastructure robustness criteria. The scope of which included reading literature regarding grid stability analysis, harmonic issue detection, electric systems with a high-penetration of renewables, and load prediction methods. The body of knowledge she collected regarding the simulation of stress conditions of materials (static structural analysis, fluent analysis, and modal analysis) proved to be a particularly unveiling piece of research. At my recommendation, she also explored pre-existing military and civilian standards as exposure to real-world applications. In particular, these included the Unified Facility Criteria (UFC).

I would wholeheartedly recommend Ms. Nicholson as an employee. If you have any more questions about the work that she was involved in or her performance as a research assistant, I would gladly offer my verbal recommendation. Please note that I have resigned from CERL effective August 29th, 2022; all inquiries may be made over the phone or to my academic email.

Cheers,

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