National Renewable Energy Laboratory April 5, 2023
Concerning: Graduate Summer Intern – Artificial Intelligence for Wind Energy

To whom it may concern,

I am currently a PhD student in the University of Arizona's Applied Mathematics program, inolved in two projects: applying physics-informed machine learning to create data-driven, reduced-order models for isotropic turbulence, and implementing and analyzing numerical methods to simulate natural gas flows, beginning to perform uncertainty quantification to model inclusion of stochastic renewables in the power network. Broadly, I am interested in applying efficient algorithms to advance the so-called "energy transition" sustainably and reliably.

Before entering graduate school, I worked for 3 years writing algorithms in an embedded environment using C/C++. This experience was invaluable, and taught me that I thrive at the interface between modeling of complicated dynamical systems and efficient implementations of algorithms to simulate them.

I am passionate about open, reproducible science, and the focus on benchmarks and canonical examples in the job solicitation, combined with the application of ML algorithms and UQ to wind energy, is very exciting. NREL seems a natural fit for my skillset and curiosity, as a leader in energy system modeling, especially the energy transition. I hope to get a chance to learn and contribute to the research at NREL.

I appreciate your consideration,

Criston Hyett

Attached: curriculum vitæ