I ILLINOIS

NATIONAL CENTER FOR SUPERCOMPUTING APPLICATIONS (NCSA)

1010 NCSA Building, MC-257
1205 W. Clark St.
Urbana, IL 61801

Recognition Letter

July 26, 2019

Dear Enyi Jiang,

On behalf of the National Center for Supercomputing Applications (NCSA), it is my pleasure to present you with this recognition letter to acknowledge your accomplishments during the Summer 2019 Students Pushing Innovation (SPIN) internship. You have been nominated by your SPIN mentors, Dr. Shirui Luo and Dr. Volodymyr Kindratenko, for important contributions to the SPIN project entitled *Machine Learning Approach to Computational Fluid Dynamics*.

As your mentors stated, you made significant contributions toward understanding the extrapolation capability of artificial neural networks for testing cases that are beyond training cases, with a specific application on fluid turbulence modeling. To quantify the dissimilarity of two homogeneous k-dimensional datasets, you examined several statistical metrics for a *priori* estimation of prediction performance. Your findings are valuable to evaluate model predictability and provide guidance to systematically generate more comprehensive training database. It has been a fruitful summer to work together with this brilliant and dedicated student. During your internship, we developed enormous respect for your great skills and knowledge and dedication to research. It is exceedingly rare for undergraduate to achieve as much as you have in a relatively short time. We have no doubt that you will continue to contribute to the scientific computing research field in your postgraduate study.

Thank you for your dedication and contributions that you have made in the course of your internship. I wish you the best in your future endeavors.

Sincerely,

William Gropp
Director and Chief Scientist, NCSA
Thomas M. Siebel Chair in Computer Science
University of Illinois Urbana-Champaign