Peer Review of

Quantitative Evaluation Framework of Machine Learning Processors (MLP) for High Energy Physics

Presented by Youngsoo Kim, Bradley University

I found Youngsoo Kim's presentation to be very informative. Mr. Kim's summer research was about the use of open-source available software to speed up the matrix computations required for machine learning processes. The open-source programs provided a challenge because some hadn't been updated since being first uploaded to the internet. Therefore, adjustments had to be made to update the programs. Open-source programs had to be used because other programs were used exclusively, only in private organizations and commercially available programs carry a steep price.

The presentation showed that it had been well researched and he displayed a vested interest in the topic material. Mr. Kim clearly spent a lot of time finding optimal software configurations and gathering results from different computations.

The flow of the talk was straightforward. Mr. Kim introduced himself and the people he worked with as well as gave background information about his research and why he chose to focus on this topic for this collaboration with Fermilab. He really stressed the need for better use of software and equipment in machine learning processors to take computations from weeks to complete to just hours. The conclusions he gave were succinct and he ended his presentation with ideas for future work in the area.

Mr. Kim maintained an easy flow and tone throughout the conversation. The talk did not come over as being rehearsed and his speech was sequenced in such a way to lead you through what was printed on the accompanying slides in the presentation. He was very approachable towards the questions I had about what type of software environment he preferred to work in.

Overall, I enjoyed the presentation and learned more about the availability of open-source programs for high computational machine learning processes. Something that I will be looking into for future projects.