TOUCH

My dear colleagues,

For the past twelve weeks, I have served as Project Lead for Zhiqi Li's Project Based Learning (PBL) program in computer vision and image processing. In this time, I have overseen Zhiqi's efforts on an intensive research program as well as a research paper summarizing the work accomplished.

I specialize in device realization, computer vision and medical imaging in my academic endeavors. Following my PhD from MIT, I was a post-doctoral researcher at the Massachusetts General Hospital. Currently, I am leading the technical development at a medical device startup in Montreal. These experiences have significantly informed the PBL program Zhiqi completed, which is a rigorous program meant to challenge students for 12 weeks of real-world, project-based learning.

Over the course of the program Zhiqi managed a great deal of responsibility, including conducting research on deep learning method for CT slice super-resolution, writing a paper summarizing his research, and presenting his research findings to myself and other colleagues. I interacted with Zhiqi on a weekly basis throughout the entirety of the program through online live sessions and offline support, and have witnessed his progress first-hand.

For his PBL project, Zhiqi worked on developing a novel deep learning architecture to increase the slice resolution of CT volumes. In addition to the problem of super-resolution, he also created a potential framework for single-shot learning. From the start of the project, he demonstrated a good work ethic, time management and organization. Zhiqi continually develops his understanding of deep learning theory and the associated mathematics which makes him a very strong candidate in the field.

In order to maximize his working understanding of this research, I would recommend that Zhiqi continue engaging with these subjects, potentially taking the opportunity to rejoin the PBL when it is next available. The program is very demanding, and while extenuating circumstances prevented Zhiqi from completing the entirety of its requirements to the high caliber expected of an advanced research project, it is clear that the experience remains a deeply educational one for him.

Thank you very much for your time and consideration.

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Project Lead Signature:

DocuSigned by:
Alex Benjamin

Name: Alex Benjamin

Title: Researcher in Device Realization and Computational Instrumentation Lab at MIT

Date: 1/20/2022

Academic Team Signature:

DocuSigned by:
Monét Clarke

Name: Monét Clarke

Title: Senior Academic Coordinator

Date: 1/20/2022