Dear Admissions Committee,

As the supervisor responsible for Chi-Yao in HTC VIVE, I fully recommend him to your program. For nearly three years in HTC VIVE, he was a core member of the Advanced and Creativity Team. He often handled the important issues, which might be an urgent concern of upper management, and presented the research results to them. Given his contribution, the development of the SLAM tracking technique for VR in HTC VIVE gradually matured and finally became a successful VR product.

Chi-Yao was a rare fresh graduate who had sufficient knowledge of computer vision when he was recruited to HTC VIVE in 2017. He quickly showed his talent and passion for research. At the begining, Chi-Yao built the bridge between computer vision and IMU algorithm. He used the information from IMU fusion to compute the direction of gravity and calibrated the coordinates of the VR world. He also used the IMU integration as the prior state in computer vision state estimation and help rapidly obtained a converse result. Moreover, Chi-Yao shared his background knowledge of optimization with our team. He developed a state estimation algorithm which enable the multiple-cameras tracking and is computed in Lie algebra. He also improved the relocalization part in our SLAM algorithm.

As a result, its robustness was definitely improved by Chi-Yao’s contribution.

Furthermore, Chi-Yao showed not only his research ability on computer vision but also his integrating ability, which is definitely necessary for both commercial and research project. Chi-Yao handled diversity projects in our team. In several new projects, He had to communicate with different departments, including hardware team, mechanical team, and multimedia teams. Even though these look complicated, Chi-Yao always efficiently completed his tasks and and built suitable algorithmic skeletons for these new projects. This achievement completely confirmed his integrating ability and communication skills.

To summarize, Chi-Yao exhibited his exceptional capability in HTC VIVE, and I believe that he is ready to bring his talent to your institution. Moreover, I believe that the education that he will receive in your university will constitute a great opportunity for Chi-Yao to further develop his ability in computer vision area. Without a doubt, I recommend Chi-Yao to your program.

Best Regards,

Rachet Chen

Vice president of Advanced and Creativity Team

HTC VIVE

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