

Draft for Recommendation Letter for Chi-Wei Tseng

As a professor of the Department of Computer Science and Information Engineering at National Taiwan University and an entrepreneur, I am pleased to recommend Chi-Wei Tseng for admission to the (name of the program) at (name of the university).
(...)

Chi-Wei was enrolled in the GPU programming course I offered in spring semester, 2012. I found him a responsive and passionate student, always sitting at the front row, asking significant questions during the lectures and discussing course materials with classmates during the breaks. At times, his scientific background has provided him with insights into physical theories utilized in simulations or applications. For instance, during the proposal phase of the final project of the course, he has given useful suggestions to several teams, including one whose goal was to accelerate a molecular isomer counting algorithm with GPU and another who wanted to build a fluid simulator under soft particle hydrodynamics. His enthusiasm, diligence and ability to create links between concepts under different disciplines have caught my attention since the start of the semester.

Chi-Wei has also impressed me with his creativity and confidence from the aspect of doing research. For their final project in GPU programming, his team decided to design a super-resolution video player using CUDA and OpenGL. Despite that I initially discourage them from picking this topic due to limited success in a similar project from the same course last year, the system they collaboratively developed was well beyond my expectation. Chi-Wei, as one of the leading programmers, considered data locality and smartly deployed filters and buffers into appropriate device memories, getting the algorithm to run in real-time. Eventually, their project was awarded the best GPGPU project of the course.

Throughout the course of project development, Chi-Wei differentiated himself from others by his persistence in perfection. During the discussions of final project, he was constantly unsatisfied with what they had achieved and kept throwing out ideas to improve the system. His devotion and encouragement to teammates were two of the main reasons that made their project successful. In addition, he showed proficiency in giving a high quality academic presentation for their project in the poster session of the course. He explained the project with a rigid logical structure, yet also made the presentation approachable and enjoyable with self-made illustration and visualization.

Chi-Wei's research capability and his attitude toward projects both guaranteed his exceptional performance as a potential researcher.

Besides all the above impressive personalities, Chi-Wei stands out from the most students I have ever met by his ambitious goals and plans to the future. During my meetings with him, I noticed that Chi-Wei has prepared himself well with specialized knowledge in computer graphics. He has shown surprising comprehension in a wide selection of research topics, from the rendering pipeline to computational photography. More importantly, Chi-Wei had a strong aspiration in contributing to the digital animation industry. He was especially concerned about the industrial environment of animation studios in Taiwan and the obstacles they were facing, in which he gave accurate and profound observations. While his proposed approaches to overcome these mentioned difficulties awaits to be challenged and verified, his concern has confirmed his strong impetus to further master the discipline of computer graphics, and to devote himself to reinvent the tools for producing animated features.

In summary, (...)