**Chi-Wei Tseng**

## STATEMENT OF PURPOSE

From the viewpoint of not only appreciation, but creation, forms of digital art — graphics, animation and music — have long fascinated me with their high expressibility and power in storytelling since my childhood. As a kid who gained much sense of achievement by exhibiting his works to friends, I partcipated in almost every extracurricular projects in designing class website, obtaining valuable experiences in digital image editing. Later, amazed at the features produced by animation studios like Pixar and Dreamworks, I took a further step to self-study the creation of three-dimensional computer graphics(3DCG), and led a team to give introductory lectures about 3DCG at the information club of my high school. Through the course of active exploration, I realize the strengths and weaknesses of computers as production tools for artists. I understand the neccessity to narrow the gap between technology and people so that the tools can provide controls with higher degrees of freedom and become more personalized and expressive. Only when artists are allowed to construct their own tool, the power of computation can be unleashed and utilized on artistic purposes.

The passion for 3DCG spurs my motivation to dive head-first into a series of related challenging courses in my university curriculum, including "Digital Image Synthesis", "Digital Visual Effects", "Computational Photography" (lectured by Professor Yung-Yu Chuang), "Interactive Computer Graphics" (lectured by Professor Ming Ouyang), "Digital Image Processing" (lectured by Professor Ming-Sui Lee) and "GPU Programming" (lectured by Professor Wei-Chao Chen). I worked hard, especially in the aspect of term projects, where I and other members in my team had great times hunting for interesting papers about computer graphics, implementing the algorithms and adding our own touch to improve the result.

(The lighting-by-guide project.)

As I originally enroll in university to study chemistry, a compromise for not doing well enough on the college entrance exam, I strived in my freshman year and got qualified in double-majoring computer science. While creative innovation and careful system analysis are the backbone of engineering, the ability to think critically and accurately is strongly emphasized in the field of natural science like chemistry. I got the best of both worlds. I joined the theoretical chemsitry lab led by Professor Yuan-Chung Cheng, where we verified novel designs of ultrafast nonlinear electronic spectroscopy by simulating quantum dynamics of molecules interacting with light. The work experience at the junction point of computer science and chemistry enables me to formulate and implement physically accurate models on computers. (?)

Personally, I am aspired to a career as an artist more than a scientist.

I aim at (doing something) in my graduate studies.