CHARACTER ANIMATION, RESEARCH AND APPLICATIONS

Character Animation is one of the foundations in Computer Graphics research. In recently years, industrial applications such as animated films, video games and other interactive human-computer interfaces have made character animation a popular research topic. Character animation research is undergoing an interesting renaissance stage, with emerging technologies, such as multi-core CPU computing, GPU (Graphics Processing Unit) acceleration. It is also benefitting from the progress of other research fields like computer vision and human-computer interface.

In this graduate level course, the students will be familiar with the most recently research topics in character animation. Another goal of this course is to give an inside look at real problems of industry applications. At each class, one of more papers will be presented by the students, followed by discussions. Instructor will provide a list of papers, which cover the topics of full-body animation, facial animation, hand animation and other related computer graphics fields. The students will also required to finish projects, which can be done by a team of 2-3 people. At the end of the semester, each team will present their project result.

Prerequisites:

- CS 4104 Data and Algorithm Analysis or equivalent courses

- CS 4204 Computer Graphics or equivalent courses

Instructor: Yong Cao