



# Mocap in Education + University of Bradford



Image courtesy of University of Bradford

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[Ben Guthrie, Motion Capture Supervisor at Framestore.](#)

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Karl Abson



University of Bradford



Animation by Rebecca Leybourne

The University of Bradford was one of the first universities in the country to venture into the area of informatics and computing.

## Preparing for Industry

Its courses in animation and visual effects are especially pioneering, having been created 10 years ago and always attracting a high number of applicants. The combined research-and industry-informed approach to teaching has been very successful and beneficial to Bradford's students with world leading researchers and industry professionals teaching on its courses.

Karl Abson, Lecturer in Creative Technology at the University of Bradford, says that practical experience is an important part of the program. He teaches a wide range of VFX subjects including computer animation and effects work, games, and interactive media.

"Our ethos is to help students immerse themselves in these areas, and to encourage them to contribute towards their own advancement," said Abson. "Our courses are heavily influenced by industry, meaning that graduates are fundamentally prepared for the creative industries they wish to be involved in."

Exposing students to the same technology used in industry means they can hit the ground running. Modules include motion capture, facial modeling, animation, lighting, and rendering.

## The Technology

"We actively update our technology based on industry development," explained Abson. "Our software ranges from standard packages such as Autodesk Maya, Motion Builder, and Mudbox to more specialist packages such as Nuke, Zbrush, Unity, and CryEngine. We also invested in industry standard hardware, of which the most notable is our Vicon motion capture system."

The department's motion capture studio consists of 16 Vicon T20 cameras. The T20 can accurately capture high speed movements such as an action sequence or a golf swing. The system is also capable of capturing both full body and detailed facial movement.

The motion capture modules are designed around industry practice and run like a real studio. Students get to take on roles from setting up the capture stage through to cleaning up data and end use.

"Students walk away with a mixture of industry specific skills based on the path they take throughout their degree, academic skills, as well as a good level of knowledge in regards to the industry itself," explained Abson. "This gives students the tools needed to successfully make informed decisions which lead to a successful career."

The final year of all degrees at Bradford is fundamentally concerned with applying the

skills learned throughout the course to a real-world setting.

Rebecca Leybourne, a student\* at the University of Bradford said, "Learning motion capture has been a great way to really bring my animations to life. To think I'm using the same technology behind some of the biggest films and games of the last 10 years is very inspiring!"

## Benefit for Employers

Employment after graduation is very high on the agenda at Bradford. Many of its skilled graduates find work across the creative industries including the visual effects, games, and animation sectors. In recent years motion capture studios such as Centroid 3D, located at Pinewood Studios, and Ninja Theory have been on the list of graduate destinations.

Ben Guthrie, Motion Capture Supervisor at Framestore says, "Practical motion capture experience is a huge benefit to a potential hire. When browsing CVs as an employer, someone with hands-on studio or post processing experience definitely goes to the top of the list. It allows the employee a chance to confirm that the industry is indeed for them, and ensures that that they come to the job knowing enough to be productive right away."

\*Since this case study was first published, Rebecca has graduated and gone on to work for Andy Serkis' performance capture studio, The Imaginarium.

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