

## Meet the CDE Research Engineers

Over the coming months we will introduce you to some of our current research engineers and alumni, giving them a spotlight opportunity to share their CDE experience. This month Alastair Barber is in the spotlight. Alastair is now using the skills developed during the CDE EngD, in his work at [The Foundry](#).



### **Alastair Barber – Double Negative**

*“The EngD is a fantastic and challenging research project. I really recommend it if you want to have the freedom and resources to try out new ideas in a meaningful and exciting way.”*

*“I was impressed by the number of industrial partners already working with the CDE along with the academics I would get to work with. I had already completed an MSc By Research in a similar area so the CDE and it seemed like a great fit, and an excellent way to advance my career.*

*I carried out my research at Double Negative, Europe's largest provider of Visual Effects for feature film, with a staff of nearly 1000 based in London, and more in offices in Vancouver and Mumbai. The company has won 3 Academy Awards (Oscars) for projects it has worked on, two within the last two years.*

*My project was in the area of camera tracking for use in visual effects production. The aim was to reduce the amount of time artists spent doing tedious and repetitive tasks that are essential for creating believable and exciting visual effects for film. In order to do this, we produced a set of novel algorithms for analysing footage and assisting in calculating the camera's movement in the real world using just the footage that had been recorded. We have also completed and published the first study of its kind within both academia and industry on the most common types of footage recorded for VFX work and the impacts of these on the production workflow and overall project cost.*

*Working on an academic research project in an industrial setting has been an extremely useful experience – as it has meant that not only have I been able to apply academic research to a pressing business need, but I have also been able to ensure that the novel developments from my project are tested robustly on real data from actual film projects. It has also massively helped me advance my career in the industry by being able to make connections across academia and industry and learn about the real challenges facing the visual effects industry today and how technological advances may help solve them.*

*One of the most significant benefits to the industrial partner is the ability to try new and unproven techniques to solving significant pain-points in the industrial process without the risks associated with running them on live production data. One of the most important things for me has been the ability to have the freedom to develop new algorithms and ideas – but being able to test these on real life data and production techniques. Making this more exciting has been the fact that the production data in question has been shots from the latest Hollywood films that haven't even been released yet. Seeing a trailer on television and recognising the shots as 'data' from my latest work is fantastic!*

*I've left Double Negative to work with The Foundry (a leading supplier of VFX production software). It is my job to use the knowledge I've gained from VFX production to analyse the performance of these new developments and I also have input into the architecture and feature sets of the product”.*

For more information on the Centre for Digital Entertainment, visit [digital-entertainment.org](https://digital-entertainment.org)