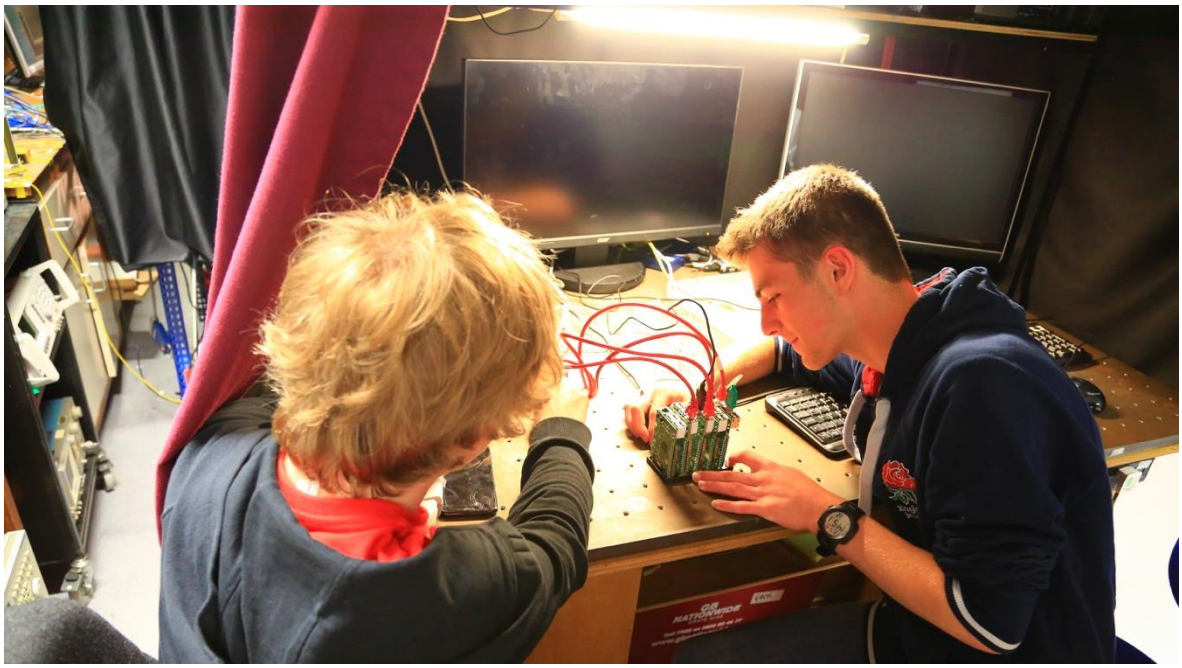
CASE STUDY

Work experience in the Centre for Advanced Photonics and Engineering (CAPE)



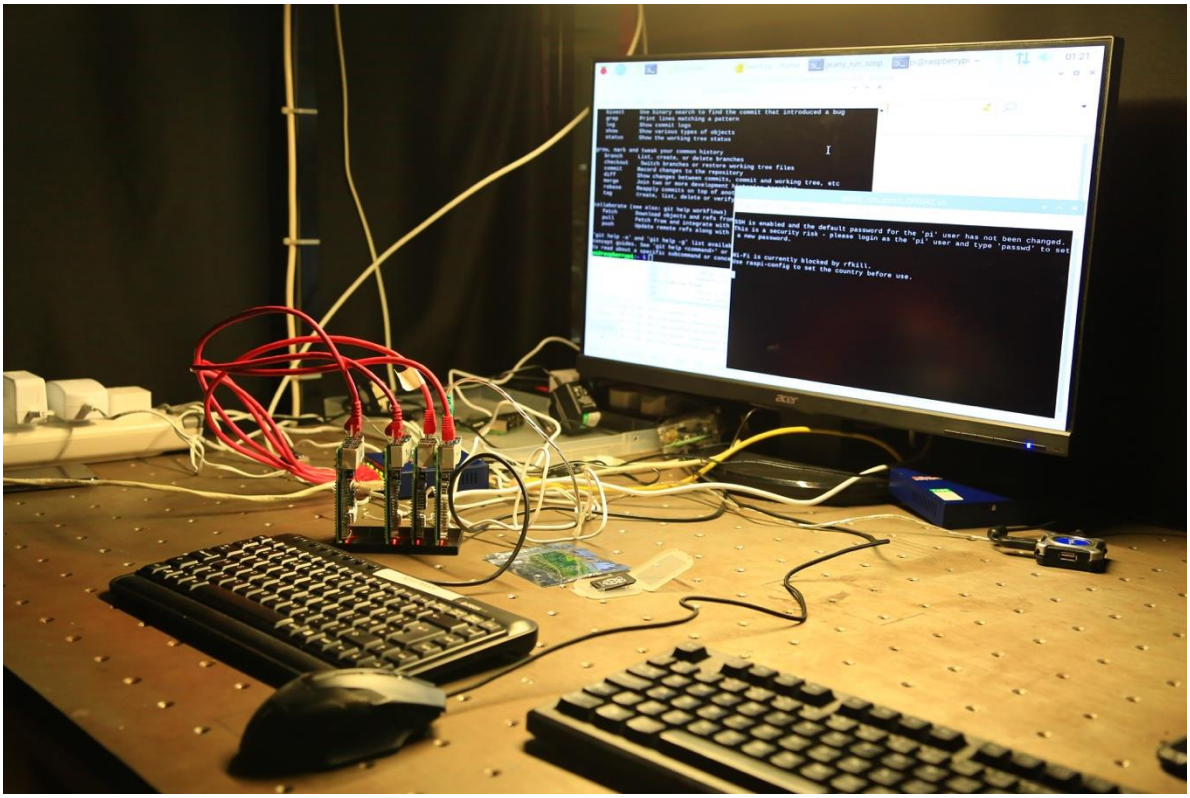
Building a Raspberry Pi cluster. Credit: Youchao Wang.

During the summer of 2019, CAPE welcomed work experience students Joel and Hugo in the optical laboratory. There they were tasked with building a Raspberry Pi cluster for displaying video on a holographic projector. This saw them generating two-dimensional hologram frames in real time.

The project involved lasers and the students were closely coached by members of Professor Tim Wilkinson's research group.

PhD student Peter Christopher said: “The work experience students were encouraged to use a cheap, open-access platform (Rasperry Pi cluster) to do a computationally intensive task which, in this case, involved holographic video. We plan to publish a conference paper based on their work that will credit them as authors.

“Joel and Hugo also had an opportunity to see the workings of an academic research group and they now have some extra achievements that they can add to their personal statements.”



Programming the holographic display. Credit: Youchao Wang.