Background: MAst in Physics from University of Cambridge

BSc in Theoretical Physics (Physic and Astronomy) from University of Birmingham

During my Internship at Max Planck Institute, I mainly analysed data from a camera prototype for the smallest telescope of the Cherenkov Telescope Array. In addition, I also wrote a Python client to communicate with the camera server. Analysing the waveforms taken by the camera I successfully managed to identify a saturation problem that prevented the camera reaching the minimal requirements. Going further, I analysed the individual data, thereby not only identified that optimising the integration window wouldn't help, but also finding sudden jumps in the signal. After aligning these jumps and discovering a 32ns repetition it was possible to relate the saturation to a hardware problem. I then created a saturation recovery technique which extended the observable intensity range beyond the camera's requirements. Additionally, the group has now managed to fix the hardware issue.

During my internship in Oxford I was mainly supervised remotely from Germany and hence heavily relied on working independently. Already at school I enjoyed working on science fair projects and discovering problems and figuring them out by myself.