



Student: Jake Minns
University of Kent
Placement: STFC
Department of Scientific
Computing
Role: Machine learning
applications for x-ray and
neutron computed
tomography experiments

*‘Having a short break
from my regular
postgraduate studies
has allowed me to
come back to my PhD
work feeling refreshed
and highly motivated.’*

What is the subject of your PhD?

An investigation into the structural dynamics of hybrid perovskites related to photovoltaic applications.

Describe a typical day on placement

A typical day started with an informal discussion of the work carried out on the previous day and a look at any problems we were having. After a general plan for the coming day we'd begin to tackle our current project until lunch. Throughout the day were talks and colloquia that we were encouraged to attend. After lunch we would continue working on the current project, typically broken by discussions on interesting papers and new project ideas.

What skills and knowledge do you feel you have learned during the placement?

A better understanding of collaborative programming through tools such as Git; methods for structuring code in a way that allows multiple people to understand and collaborate on a project; a fundamental understanding of neural networks and how to apply them to scientific problems; an improved understanding of image analysis techniques; better knowledge of fundamental programming concepts not just related to scientific data analysis.

How do you think doing a placement has benefited you for the future?

The placement has given me a better understanding of what it's like to have a career in scientific computing. I now have relevant experience in the area, having worked on real problems and projects that I hope to be relevant to my future career. I have an idea of the experience required to pursue a career in scientific computing and programming.

What advice would you give to a PGR student who might be interested in seeking a placement?

The placements provides an excellent opportunity for you to realise what it's like to have a career in the domain of your given placement, as such prioritise placements that are in areas you really think you might want to work in as the experience gained will be invaluable and the work will be highly rewarding.