



Student: Jonathan Keelan
The Open University
Placement: Network Rail
Role: Researcher

“Don’t be afraid to apply for placements outside of your current research. If you have the necessary skills to perform the placement, and it interests you, go for it.”

What is the subject of your PhD?

Computational modelling of arterial trees and embolic stroke.

Why did you decide to do a placement?

I had no experience working in industry. Coming towards the end of my PhD, there seemed like a large gap in my knowledge of the available options, and an industry placement seemed like the perfect opportunity to help inform any future decisions. While the subject of my PhD is incredibly interesting, the grass is always greener and the topic of the placement was very alluring.

Describe a typical day on placement:

Network Rail have a ‘Hot Desking’ policy implemented within the Quadrant which makes for exciting times if you are, like me, not a morning person. If you find open plan offices distracting there are numerous other options including a library, coffee shops and various secluded areas to choose from. Work involved reading a lot of academic papers and technical documents, as well as finding, downloading, testing and evaluating a plethora of software packages. If I had any problems or questions, my Line Manager was always available.

Occasionally there would be a team meeting or a presentation to attend. The team meetings were a round table affair where everyone would keep each other up to date on their work. This was incredibly useful, and something that would be interesting to try within our own department – more informal than a journal club but more formal than bumping into each other at the coffee station. The presentations were very interesting, there was a slight lexical gap in the beginning. However I was quickly informed and was able to understand the majority of what was discussed, even throwing in an occasional question.

At the end of the day I would write up short summaries of any papers or software I’d completed reading or installing. Towards the end however I began writing up the report, which was the primary goal of the internship.

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

Don’t be afraid to apply for placements outside of your current research. If you have the necessary skills to perform the placement, and it interests you, go for it. The change will be refreshing and you’ll gain some experience that will be useful when you finish your PhD.

Employer perspective:

Jonathan spent three months working with the Decision Support Team of the Technical Services function. In order to help Jonathan get the most out of this placement, we provided him with a technical assignment according to his academic capability. He was tasked to provide a brief account of currently available finite element software (either open source code or commercially available software) that would be most suitable for performing analysis and simulation for a new OLE project. Jonathan had to gain a good understanding of catenary-pantograph interaction dynamic, finite element analysis and the outputs of selected types of finite elements for modelling. This wasn’t a trivial task and Jonathan managed to write a good summary of his findings within his time with Network Rail. It is a good piece of work.

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