



**Student:** Jorge Luis Fuentes Venegas,  
Queen Mary University of London

**Placement:** i3D robotics Ltd

**Role:** Machine Vision and Software Engineer

*“I have only been in academia and knew nothing about how industry worked. This placement has opened my eyes to how I can apply the knowledge I have acquired to things that not only academics will read but people in general can see and understand.”*

### What is the subject of your PhD?

My PhD research is based on Cosmological Perturbation Theory and its applications in the late universe. In my thesis I discuss how relativistic effects will affect future surveys that will attempt to map the biggest unknown parts of the universe and how our theoretical framework can be used to compute one observable called: the galaxy number counts.

### Describe a typical day on placement

A normal day in the office would consist of everyone joining in a meeting room (or a Teams call, when remote) and talking about what they did the previous day and what they want to achieve on the day in question. It would generate a useful discussion and then point to what everyone should do that day. After that I would normally have a chat with my placement manager Dr Benjamin Crutchley about the task I would need to fulfil that day or that week and then I would get on with the projects I was in charge of. All in all, it was a really cohesive experience with the team being easy-going and very welcoming.

### What skills and knowledge have you gained during the placement?

A better sense of time management, this concept was key, in academia and in the PhD, we have three to four years to complete a project, in industry we had just couple of weeks or a month to develop a usable interface to present to the potential end user, so that is one of the best skills I could have learned. And in the knowledge part of things, I improved my programming skills and learned different programming languages I did not know before, this will be of crucial importance when looking for a job as it is one of the main skills companies are looking for, now that things need to be remote.

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

I believe it has helped me to move on from academia. For the past ten years I have only been in academia and knew nothing about how industry worked. This placement has opened my eyes to how it is, how I can apply the knowledge I have acquired over these years to things that not only academics will read but people in general can see and understand. I am very thankful to SEPnet and the people in i3D robotics for giving me the chance to contribute a little to what they do.

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

To do it! Most of PGR students, like myself, do not know these placements exist, and most of us, would not go because “it is not related to the project I’m working on” or simply because “it is outside academia”, but what I would tell them is to just do it, it does take six weeks out of a project, or summer, but it will help them decide whether or not they want to stay in academia or would like to pursue a future outside of it. It is a great opportunity to meet new people and to learn how everything works outside the academic world, which in my opinion is fantastic.