

# Matthew Howe

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GIS Analyst  
Maersk Oil



## **What does your company do?**

I work for Maersk Oil at our head office in Copenhagen and we are involved in global oil and gas exploration.

## **What is your role?**

I am a GIS Analyst supporting GIS users using ArcGIS, and involved in remote sensing, developing workflows and tools alongside geospatial analysis.

## **Describe a typical mapping or spatial analysis task conducted in your role?**

Recently I was tasked to create a global sedimentary basin database using exploration and production data from a variety of vendors. This included performing multiple spatial joins to grab data in particular basins, script development to acquire P10, P50, mean and P90 percentiles for hydrocarbon discovery sizes and well drilling depth in basins.

## **What career path did you follow into your current job?**

I initially completed a BSc Geology & Physical Geography degree at UoL where I did a GIS and Numerical Modelling module so really got into GIS at that time. I worked for a while, and then completed a MSc in GIS part time.

## **What advice would you give a student wishing to start a Geographic Data Science career in your industry?**

Firstly, get your MSc. This will give a huge advantage over other applicants that don't have a MSc. Similarly, doing voluntary or relevant work experience is also helpful. For example, you might try to get an internship with a major company or a position as a student assistant.

Gain some practice with open source software e.g. QGIS to start understanding spatial analysis concepts. Understand key GIS data principles from the very basics such as the difference between vector and raster data. Try to get to grips with ArcGIS - it is the most widely used commercial GIS application, certainly in my industry. I also can't recommend enough to learn Python. This is key to creating tools and improving peoples workflows. I have seen so many benefits. Be enthusiastic and be keen to learn. If you can't code in Python, say that you are willing to learn. You are very much at an advantage if you have a Geology or Earth Science background. The understanding of geological concepts and principles is a key requirement and again would give you an edge for a GIS job in my current industry.

### **Where do you see the Geographic Data Science industry going in the next 10 years?**

Big Data is a key growth area at the moment. How do we handle such data? Also, Web GIS are increasingly important, and it would be worth getting up to speed with web mapping and web services.