

# Your future in STEM: A-Z

Where might **science** take you?

## Please can you introduce yourself and tell us a bit about your job?

My name is Alisdair and I've been a remote sensing data analyst at **Rezatec** for over 5 years. I studied for over 8 years to reach this role. In my current role I work as a solution's analyst, I try and match the needs of clients (mostly in the forestry sector) with developments in the analysis of satellite data. I obtain data products and deliver this to my clients which allows them to be better informed about how they manage their natural asset.

My daily tasks include responding to sales queries from prospective clients and having discussions about how our company's products might match their needs. I also help write technical reports which document how our proposed solution will meet their needs. Then I conduct some analysis, usually developing new methods and processes to improve our existing products and services. I then deliver these products to the client and discuss how it can be used effectively within the client's business.

## How did you get into this line of work?

Most of my background was academic until I got a consultancy

position after my PhD, in which I worked for a spin-off from the university which was set up to bring new science into small businesses as a way of boosting SME's (small and medium-sized enterprises) in Wales. This gave me practical experience of applying my learning into real world situations. Bridging this gap was significant for me as it showed me the divide between academic theory and practical reality in a business.

## What qualifications did you study, or what experience did you gather to enable you to become Senior Geospatial Solutions Analyst?

I studied an undergraduate Geography degree in Swansea University, specialising in Physical Geography. I chose to stay on at this university study a Master's in Environmental Dynamics and Climate Change afterwards. After some work experience, I saw a PhD post and applied because I



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## Geospatial Solutions Analyst

was interested in using satellite data for monitoring the natural environment.

## Were there any moments or events that inspired you and led you down this path, either as a child, a student or since entering work?

I always had a passion for Geography and always enjoyed the geography fieldtrips and understanding how the natural world works. Discovering the power of satellite observations, and their applications in real



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world settings really inspired me too. Seeing how this analysis can help make a real tangible difference to businesses is also inspiring, as one big concern with research is that it can sit on a shelf and not have any impact outside of academia. So actively creating a change through the work I do (albeit small) is inspiring.

### **Were there any people who has inspired you into this line of work?**

My PhD supervisor was a brilliant man who had an amazing energy about him. He was incredibly inspiring and gave the subject so much enthusiasm it was difficult not to get excited by it. He saw the potential of earth observation for solving natural problems globally (e.g. carbon monitoring) and seeing how it was possible is what inspired me to do the same and try and live that goal.



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### **How has your line of work changed to when you first started as a Senior Geospatial Solutions Analyst to now?**

Satellite technology and GIS analysis techniques appear to advance so rapidly that it feels we are struggling to keep up with the potential new developments. It appears there is more data out there now that could ever be processed effectively, but at the same time we now devour so much data it is astounding compared to only a few short years ago.

In addition to that, national and international interest in the state of the natural environment is increasing, and the need for timely data to help inform policy and decision making is growing alongside. It feels like satellite data analysis is one of the crucial ways forward to help meet this need.

### **How has studying science at school prepared you to be become such a successful Senior Geospatial Solutions Analyst?**

Studying science has been critical for me to be able

to access this job, and this career path. I regularly apply fundamental physics, maths, and natural sciences, on a daily basis in order to work for clients in differing sectors (forestry, water quality, infrastructure, agriculture etc.).

### **Were there any obstacles or factors that put you off this route at any point?**

As mentioned, the greatest concern in school was that studying geography had little or no potential for a relevant career path. I did consider studying Product Design instead as this felt like it was likely to be more successful for future job prospects, but I am glad I stuck to pursuing Geography.

### **What advice would you give to someone thinking about going into this line of work?**

Follow your interests and ensure you get a good understanding of where your interest can take you. Many people I work with have come from different backgrounds (physics, English language, business, engineering, data science, mathematics), so if you work hard and maintain your transferable skills, you can pursue your interests in later life. ►



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Keep up to date with research and advancements in your field of interest, because things change so fast that being in the know is very helpful for job prospects and for developing in your career. Having a desire to learn new things helps, whether in your spare time (simply subscribing to a research journals or articles is enough to get ideas), or through work.

### **What advice would you give to others thinking about a career in STEM?**

Pursue something that inspires you; there are moments where you must do repetitive tasks in

order to gain experience and having a passion for the job you are working in really helps. Study hard, but don't worry if you fail something (the only module I failed in university was in the exact subject I now work in, Remote Sensing and GIS). By staying committed and learning new skills, you can be diverse enough to explore more opportunities as they become available.

### **What is the reaction from friends and family when you shared your desire to become a Senior Geospatial Solutions Analyst?**

My friends are generally curious and interested to know more. It sounds very exciting ("playing with satellite data") although the reality is perhaps a little less exciting. But on the whole people are very supportive because it's a career that is significant in today's world of changing environments. People care more for the natural world and understand the role satellite data can play, so overall people are very positive about my career.



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