Brilliant Careers for STEM students in the South West: Cornish Lithium

Employees:

50

Location:

Penryth

Industry:

Mineral exploration

What does Cornish Lithium do?

Lithium has been called the 'new oil' because of its use in batteries that power electric vehicles, making it crucial for fighting climate change. And believe it or not, lithium is abundant in Cornwall. Cornish Lithium is a young tech company who explore for and extract lithium in Cornwall, at the centre of a mining boom for the mineral.

Why is maths so important to Cornish Lithium's work?

Lithium is super-valuable, but finding it and getting it out the ground is no walk in the park. That's where the maths comes in: using a combination of sophisticated mathematical modelling and cutting-edge technology, Cornish Lithium can locate and mine the environmentally-friendly mineral.

Three key questions:

- How do you measure the density of lithium dissolved in underground water?
- How do you build a 3D digital model of the Cornish landscape?
- How do you use drones to identify geological fault lines?

Employee profile: Fred Jackson, Data Scientist

What A-Levels did you take?

Maths, Physics and Geology

How did you become a data scientist?

It was a natural transition from studying Geophysics, which in many ways is data science applied to the physics world. Then my degree was all about using time-series analysis to build earthquake models in Canada. I really enjoyed the tangible real-world impact of the work.

What's the best part of your job?

I work with a wide range of programming languages, handling projects all the way from conception to completion. But the most enjoyable part of my job as a Data Scientist is still when I fix the bug in my code and it finally runs. It feels so good!

What is a data scientist?

It's hard to pin down, because different companies use different definitions and role specifications, but to me a data scientist is a bit of a generalist. You need to know a wide range of languages and tools, and handle various aspects of a projects, all the way from conception to finalisation.

What makes someone a good data scientist?

It varies depending on the exact field, but I think the key things are fundamental skills in maths, statistics and adaptability.