

## Course summary

We have a great opportunity right now with technologies that are all coming together in this perfect storm. We've got new cloud computing, where we can move large data very quickly. We've got small satellites that bring all kinds of new sensors and capabilities. We've been working on a new capability for video from space. And we've got software solutions that allow us to integrate multiple data sets. This is creating an environment, in which we have an opportunity for new innovations and new analytic solutions.

You used to have a handful of satellites operated manually. Now hundreds of satellites are being launched in constellations, taking pictures not once in a week, but once every day, many times a day, and very soon, many times now. That's a great opportunity, having more data coming down to Earth. The challenge to extract the relevant information in the relevant time-frame, we all hope in our sector that artificial intelligence will help move the sector forward.

IOI is changing things. Now what we can do is bring data from many satellite emissions. We can bring them all together. We can bring the model data. And in an afternoon, I can do what I could have done in a year.

Basically, now the cloud is a supercomputer available from their laptop. Because of the democratization of the data, everyone will have access to the unbiased view to our planet. And I think this will change dramatically how we look at things.

Just a few years ago, if you wanted to work with a terabyte of data, you needed to have a terabyte of hard disk storage. And you also had to figure out how you're going to copy it all. We can make petabytes of data available for anybody to work with without having to acquire it. And what that does is it allows people to ask more questions.

Suddenly you can get access to data. You can let people work on data. You don't have to buy it. You don't have to establish it. You can build upon the knowledge of others. You don't have to know everything. You need this performance. You need this power to really do large-scale processing. On demand, in near real time, you can easily build your services.

With data visualization, you have a quicker processing period than you do with language. The purpose of the platform is to make data, which is more abstract, easy to know and easy to intuitively understand. By bringing light to the data, we can discover and see connections, and make common understandings that would otherwise be quite difficult.

In 2050, we will have 9 billion people living on this planet. So these are potentially 9 billion data collectors, which have all devices, such as mobile phones. In combination with remote sensing, citizen science has a massive potential in terms of collecting, calibration, and validation of data for improved algorithms and processing.

Costs are coming down with all the nano-satellites. So access to space is much, much cheaper. And now the barriers are even going further down this blockchain. Because blockchain is adding trust into the data, into access to the assets. And this will lead into an entirely new space-based supply

chain of data and services, enabling again, your business models and new solutions for the greater good of the planet.

Two years ago the things like we have in Sentinel Playground, that was a science fiction, which was only available in movies. And now, everyone has access to this. And I have no idea what will happen in a couple of years. Because if there was this tech in two years, then the next one will be major.