Overcoming the challenges of machine learning at scale

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ABSTRACT

The field of data science and machine learning is rapidly evolving. Estimates of the potential value from these technologies to the resources industry is in the billions of dollars. But resources companies face several challenges in capitalising on these advances in data science and realising this value. We have not progressed with digital transformation at the speed that we desired. Our industry lacks a repeatable process and toolkit for developing and deploying data science solutions at scale. There are also significant cultural and process hurdles. Products developed in other industries, like the tech industry, do not meet the needs of a sector characterised by complicated processes, heavy equipment, and considerable safety and environmental risks.

In this presentation, we talk through a number of approaches that operators are taking to overcome these challenges, and scale data science in their organisations. From a technical aspect we will discuss data science project management, MLOps (machine learning operations) and required infrastructure. From a cultural perspective, we unpack the key barriers around skillsets, data literacy, and organisational structure.

Our aim is for our audience to walk away with an understanding of the bright and scaled future of machine learning in the resources sector, and a tangible understanding of the paths to achieving this.