Data engineers and scientists are developing innovative ways to uncover insights hidden beneath the heap of data without requiring the budget of a Fortune 500.

We’re going to see a lot more small and mid-size companies incorporating big data analytics into their business strategies.

The future is bright for those who take action to understand and embrace it.

Machine learning (ML) and artificial intelligence (AI) are already being successfully employed in industries like healthcare, for detection and diagnosis, and manufacturing, where intelligent systems track wear and tear on parts. When a part is close to failure, the system might automatically reroute the assembly line elsewhere until it can be fixed.

That’s a practical example, but there are all sorts of applications beyond this: email marketing software that can diagnose the winner of an A/B test and apply it to other emails, for example, or analysis of customer data to determine loan eligibility. Of course, businesses that don’t yet feel comfortable fully automating decisions can always retain a final step of manual approval. The concept of big data – complicated datasets that are too dense for traditional computing setups to deal with – is nothing new. But what is new, or still developing at least, is the extent to which data engineers can manage, data scientists can experiment, and data analysts can analyze this treasure trove of raw business insights.