## What is a data scientist?

# At its core, a Data Scientist works with data to solve problems that deliver business value.

With BCG X you're not just crunching numbers—you'll design intelligent systems, uncover hidden patterns, and use machine learning to make smarter decisions at scale.

### The role is cross-functional

While Data Scientists often overlap with Data Analysts, Data Engineers, and DevOps, at BCG X, the focus is usually on modeling—building systems that predict and explain outcomes.

#### It's about applied intelligence

You'll take messy, real-world data and use it to drive smarter decisions for real businesses. Expect ambiguity. Expect iteration. Expect impact.

### The core skill set includes:

- Statistics Understanding patterns and variability
- Mathematics Framing problems and structuring models
- Programming Writing code to analyze and build
- Communication Turning data output into business insight







BCG X is using data science to help companies generate competitive advantage and transform their businesses. To do this, we typically follow a **5-step methodology** when approaching a case:

- 1. Understand the business and frame the problem
  What is the context of this problem and why is the client trying to solve it?
- 2. Exploratory data analysis and data cleaning
  What data are we working with, what does it look like and how can we make it better?
- 3. Feature engineering
  Can we enrich this dataset using our own expertise or third-party information?
- 4. Modeling and evaluation
  Can we use this dataset to make predictions? If so, are they reliable?
- 5. Insights and recommendations

  How can we communicate the value of our predictions by explaining them in a way that matters to the business?

