Introduction to Generative Deep Learning

Part I is a general introduction to generative modeling and deep learning—the two fields that we need to understand in order to get started with generative deep learning!

In Chapter 1 we will define generative modeling and consider a toy example that we can use to understand some of the key concepts that are important to all generative models. We will also lay out the taxonomy of generative model families that we will explore in Part II of this book.

Chapter 2 provides a guide to the deep learning tools and techniques that we will need to start building more complex generative models. In particular, we will build our first example of a deep neural network—a multilayer perceptron (MLP)—using Keras. We will then adapt this to include convolutional layers and other improvements, to observe the difference in performance.

By the end of Part I you will have a good understanding of the core concepts that underpin all of the techniques in later parts of the book.