Deep Learning

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1 Introduction

2 A Brief Overview of Tensors

You are most likely familiar with scalars, vectors, and matrices,

3 Selecting A Network Architecture

4 Convolutional Neural Networks

4.1 What Is Convolution?

discrete case: $(a * b)_n = \sum_{\substack{i,j \\ i+j=n}} a_i \cdot b_j$

4.2 Image Classification Example

5 Recurrent Neural Networks

6 Generative Models

6.1 Generative Adversarial Neural Networks

6.2 Variational Autoencoders