Better: 2-D Coordinate System

Beginner

Advanced

Technical

Conceptual

NICK BOSTROM

SUPERINTELLIGENCE

Paths, Dangers, Strategies

DEEP LEARNING with Python

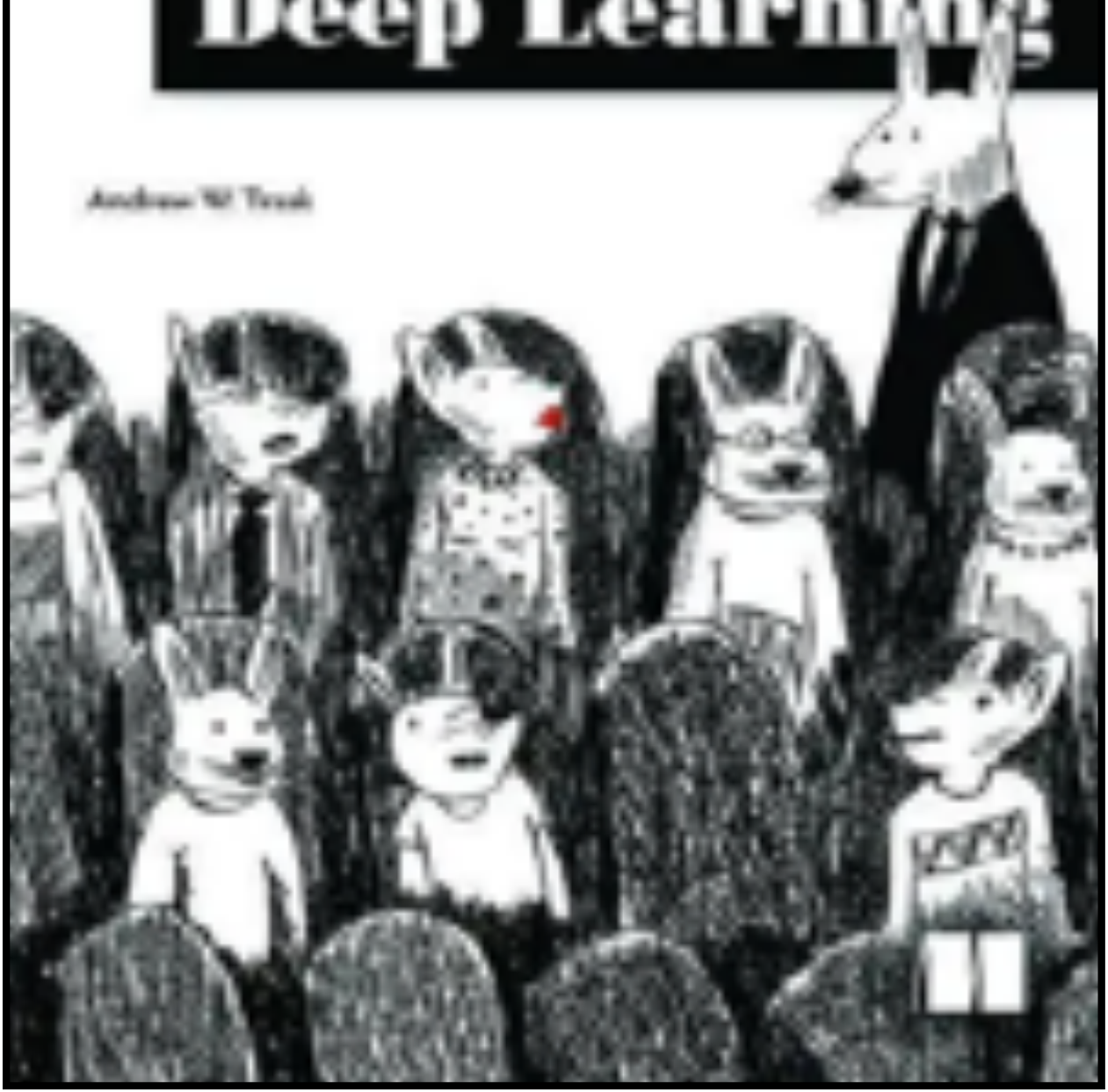
François Chollet

MANNING

grokking

Deep Learning

Andrew W. Trask



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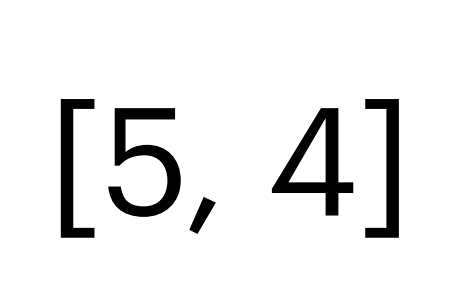
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[-3, -1]

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"Brilliant..... Exhilarating."
—RICHARD DAWKINS, from the foreword

A THOUSAND BRAINS

A NEW THEORY OF INTELLIGENCE

JEFF HAWKINS

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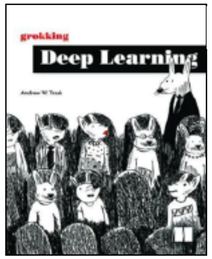

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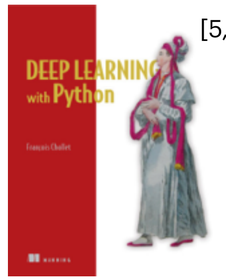

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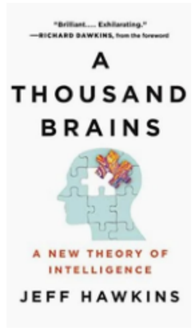

[-3, -1]

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Even better: use N-dimensions

- Neural networks choose the dimensions for us.
- Based on the labelled training data (think “cat” vs. “dog”), neural networks are able to “embed” objects (words, images, video, audio) into N-dimensional space.
- We can represent embeddings as vectors:
    - [a0, a1, a2, …, aN]
- Similar objects get embedded in similar locations,
- This gives us the ability to do *semantic search*, *i.e.*, find things that have similar meaning.