

# CONTENTS

Prologue 1

CHAPTER 1

Desperately Seeking Patterns 7

CHAPTER 2

We Are All Just Numbers  
Here . . . 26

CHAPTER 3

The Bottom of the Bowl 64

CHAPTER 4

In All Probability 95

CHAPTER 5

Birds of a Feather 144

CHAPTER 6

There's Magic in Them  
Matrices 176

CHAPTER 7

The Great Kernel Rope Trick 206

CHAPTER 8

With a Little Help from  
Physics 242

CHAPTER 9

The Man Who Set Back Deep  
Learning (Not Really) 277

CHAPTER 10

The Algorithm that Put  
Paid to a Persistent Myth 302

CHAPTER 11

The Eyes of a Machine 346

CHAPTER 12

Terra Incognita 382

Epilogue 415

Acknowledgments 431

Notes 435

Index 455