

CONTENTS

Acknowledgments	ix
A Note to Readers	xi
CHAPTER 1 Search Problems	1
CHAPTER 2 Exhaustive Search for an Informant	9
CHAPTER 3 Arrays and Indexes on a Criminal’s Farm	17
CHAPTER 4 Strings and Hidden Messages	25
CHAPTER 5 Binary Search for a Smuggler’s Ship	29
CHAPTER 6 Binary Search for Clues	39
CHAPTER 7 Adapting Algorithms for a Daring Escape	47
CHAPTER 8 Socks: An Interlude and an Introduction	57
CHAPTER 9 Backtracking to Keep the Search Going	65
CHAPTER 10 Picking Locks with Breadth-First Search	71
CHAPTER 11 Depth-First Search in an Abandoned Prison	83
CHAPTER 12 Cafeteria Stacks and Queues	93
CHAPTER 13 Stacks and Queues for Search	103
CHAPTER 14 Let’s Split Up: Parallelized Search	109
CHAPTER 15 Iterative Deepening Can Save Your Life	117
CHAPTER 16 Inverted Indexes: The Search Narrows	127
CHAPTER 17 A Binary Search Tree Trap	135
CHAPTER 18 Building Binary Search Ladders	145
CHAPTER 19 Binary Search Trees for Suspects	151
CHAPTER 20 Adding Suspects to the Search Tree	163
CHAPTER 21 The Binary Search Tree Property	171
CHAPTER 22 Tries for Paperwork	175

CHAPTER 23	Best-First Search: A Detective's Most Trusted Tool	183
CHAPTER 24	Priority Queues for Investigations	193
CHAPTER 25	Priority Queues for Lock Picking	201
CHAPTER 26	Heuristics in Search.	207
CHAPTER 27	Heaps in Politics and Academia	213
CHAPTER 28	Difficult Search Problems	223
CHAPTER 29	Search Termination	231
Epilogue.	237
Index	239