Python Algorithms

Mastering Basic Algorithms in the Python Language

Python Algorithms: Mastering Basic Algorithms in the Python Language

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For my students. May your quest for knowledge be richly rewarded.

Contents at a Glance

Contents	vi
About the Author	xiii
About the Technical Reviewer	xiv
Acknowledgments	xv
Preface	xvi
Chapter 1: Introduction	1
■ Chapter 2: The Basics	9
■ Chapter 3: Counting 101	45
■ Chapter 4: Induction and Recursion and Reduction	71
■ Chapter 5: Traversal: The Skeleton Key of Algorithmics	101
■ Chapter 6: Divide, Combine, and Conquer	125
■ Chapter 7: Greed Is Good? Prove It!	151
■ Chapter 8: Tangled Dependencies and Memoization	175
■ Chapter 9: From A to B with Edsger and Friends	199
■ Chapter 10: Matchings, Cuts, and Flows	221
■ Chapter 11: Hard Problems and (Limited) Sloppiness	241
■ Appendix A: Pedal to the Metal: Accelerating Python	271
■ Appendix B: List of Problems and Algorithms	275
Appendix C: Graph Terminology	285
Appendix D: Hints for Exercises	291
■ Index	307

Contents

Contents at a Glance	v
About the Author	xiii
About the Technical Reviewer	xiv
Acknowledgments	
Preface	
Chapter 1: Introduction	1
What's All This, Then?	2
Why Are You Here?	3
Some Prerequisites	4
What's in This Book	5
Summary	6
If You're Curious	6
Exercises	7
References	7
Chapter 2: The Basics	9
Some Core Ideas in Computing	9
Asymptotic Notation	10
It's Greek to Me!	12
Rules of the Road	14
Taking the Asymptotics for a Spin	
Three Important Cases	
Empirical Evaluation of Algorithms	20

Implementing Graphs and Trees	23
Adjacency Lists and the Like	25
Adjacency Matrices	29
Implementing Trees	32
A Multitude of Representations	35
Beware of Black Boxes	36
Hidden Squares	37
The Trouble with Floats	38
Summary	40
If You're Curious	41
Exercises	42
References	43
■ Chapter 3: Counting 101	45
The Skinny on Sums	45
More Greek	46
Working with Sums	46
A Tale of Two Tournaments	47
Shaking Hands	47
The Hare and the Tortoise	49
Subsets, Permutations, and Combinations	53
Recursion and Recurrences	56
Doing It by Hand	57
A Few Important Examples	58
Guessing and Checking	62
The Master Theorem: A Cookie-Cutter Solution	64
So What Was All <i>That</i> About?	67
Summary	68
If You're Curious	
Exercises	69

Reference	es	70
Chapter	4: Induction and Recursion and Reduction	71
Oh, That's	s Easy!	72
One, Two	, Many	74
Mirror, M	irror	76
Designing	g with Induction (and Recursion)	81
Finding	a Maximum Permutation	81
The Cele	ebrity Problem	85
Topologi	ical Sorting	87
Stronger	Assumptions	91
Invariants	s and Correctness	92
Relaxatio	n and Gradual Improvement	93
Reduction	n + Contraposition = Hardness Proof	94
Problem \$	Solving Advice	95
Summary	/	96
If You're	Curious	97
Exercises	S	97
	es	
Chapter	5: Traversal: The Skeleton Key of Algorithmics	101
A Walk in	the Park	107
No Cycle	es Allowed	108
How to S	Stop Walking in Circles	109
Go Deep!		110
Depth-F	irst Timestamps and Topological Sorting (Again)	112
Infinite M	azes and Shortest (Unweighted) Paths	114
Strongly (Connected Components	118
Summary	/	121

If You're Curious	122
Exercises	122
References	123
■ Chapter 6: Divide, Combine, and Conquer	125
Tree-Shaped Problems: All About the Balance	
The Canonical D&C Algorithm	
Searching by Halves	
Traversing Search Trees with Pruning	
Selection	
Sorting by Halves	135
How Fast Can We Sort?	
Three More Examples	
Closest Pair	
Convex Hull	140
Greatest Slice	142
Tree Balance and Balancing	143
Summary	148
If You're Curious	149
Exercises	149
References	150
Charter 7: Oread to Ocado Bresse III	4-4
Chapter 7: Greed Is Good? Prove It!	
Staying Safe, Step by Step	
The Knapsack Problem	
Fractional Knapsack	
Integer Knapsack	
Huffman's Algorithm	
The Algorithm	
The First Greedy Choice	159

Going the Rest of the Way	160
Optimal Merging	160
Minimum spanning trees	161
The Shortest Edge	162
What About the Rest?	163
Kruskal's Algorithm	164
Prim's Algorithm	166
Greed Works. But When?	168
Keeping Up with the Best	168
No Worse Than Perfect	
Staying Safe	
Summary	172
If You're Curious	172
Exercises	173
References	174
Chapter 8: Tangled Dependencies and Memoization	175
	175 176
Chapter 8: Tangled Dependencies and Memoization Don't Repeat Yourself	175 176 182
Chapter 8: Tangled Dependencies and Memoization Don't Repeat Yourself Shortest Paths in Directed Acyclic Graphs	175 176 182 184
Chapter 8: Tangled Dependencies and Memoization Don't Repeat Yourself Shortest Paths in Directed Acyclic Graphs Longest Increasing Subsequence	175 176 182 184 187
Chapter 8: Tangled Dependencies and Memoization Don't Repeat Yourself Shortest Paths in Directed Acyclic Graphs Longest Increasing Subsequence Sequence Comparison	175 176 182 184 187
Chapter 8: Tangled Dependencies and Memoization Don't Repeat Yourself Shortest Paths in Directed Acyclic Graphs Longest Increasing Subsequence Sequence Comparison The Knapsack Strikes Back	175 176 182 184 187 190
Chapter 8: Tangled Dependencies and Memoization Don't Repeat Yourself Shortest Paths in Directed Acyclic Graphs Longest Increasing Subsequence Sequence Comparison The Knapsack Strikes Back Binary Sequence Partitioning	175176182184187190193196
Chapter 8: Tangled Dependencies and Memoization Don't Repeat Yourself Shortest Paths in Directed Acyclic Graphs Longest Increasing Subsequence Sequence Comparison The Knapsack Strikes Back Binary Sequence Partitioning Summary If You're Curious	175176184187190193196
Chapter 8: Tangled Dependencies and Memoization Don't Repeat Yourself Shortest Paths in Directed Acyclic Graphs Longest Increasing Subsequence Sequence Comparison The Knapsack Strikes Back Binary Sequence Partitioning Summary	175182184187193196196

Chapter 9: From A to B with Edsger and Friends	199
Propagating Knowledge	200
Relaxing like Crazy	201
Finding the Hidden DAG	204
All Against All	206
Far-Fetched Subproblems	208
Meeting in the Middle	211
Knowing Where You're Going	213
Summary	217
If You're Curious	218
Exercises	218
References	219
Chapter 10: Matchings, Cuts, and Flows	221
Bipartite Matching	
Disjoint Paths	
Maximum Flow	227
Minimum Cut	
Cheapest Flow and the Assignment Problem	232
Some Applications	234
Summary	237
If You're Curious	237
Exercises	238
References	239
■ Chapter 11: Hard Problems and (Limited) Sloppines	ç 2 <i>1</i> 11
Reduction Redux	
Not in Kansas Anymore?	
Meanwhile, Back in Kansas	
เขเงสเเพทีเมษ, บิสบิก มา กิสเเริ่มรับ	

But Where Do You Start? And Where Do You Go from There?	249
A Ménagerie of Monsters	254
Return of the Knapsack	254
Cliques and Colorings	256
Paths and Circuits	258
When the Going Gets Tough, the Smart Get Sloppy	261
Desperately Seeking Solutions	263
And the Moral of the Story Is	265
Summary	267
If You're Curious	267
Exercises	267
References	269
Appendix A: Pedal to the Metal: Accelerating Python	271
Appendix B: List of Problems and Algorithms	275
Appendix C: Graph Terminology	285
Appendix D: Hints for Exercises	291
Indov	207

About the Author



■ Magnus Lie Hetland is an experienced Python programmer, having used the language since the late 90s. He is also an associate professor of algorithms at the Norwegian University of Science and Technology and has taught algorithms for the better part of a decade. Hetland is the author of *Beginning Python* (originally *Practical Python*).

About the Technical Reviewer



■ Alex Martelli was born and grew up in Italy and holds a Laurea in Ingeneria Elettronica from the Universitá di Bologna. He wrote *Python in a Nutshell* and coedited the *Python Cookbook*. He's a member of the PSF and won the 2002 Activators' Choice Award and the 2006 Frank Willison Award for contributions to the Python community. He currently lives in California and works as senior staff engineer for Google. His detailed profile is at www.google.com/profiles/aleaxit; a summary bio is at http://en.wikipedia.org/wiki/Alex_Martelli.

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Preface

This book is a marriage of three of my passions: algorithms, Python programming, and explaining things. To me, all three of these are about aesthetics—finding just the right way of doing something, looking until you uncover a hint of elegance, and then polishing that until it shines. Or at least until it is a bit shinier. Of course, when there's a lot of material to cover, you may not get to polish things quite as much as you want. Luckily, though, most of the contents in this book is prepolished, because I'm writing about really beautiful algorithms and proofs, as well as one of the cutest programming languages out there. As for the third part, I've tried hard to find explanations that will make things seem as obvious as possible. Even so, I'm sure I have failed in many ways, and if you have suggestions for improving the book, I'd be happy to hear from you. Who knows, maybe some of your ideas could make it into a future edition? For now, though, I hope you have fun with what's here and that you take any newfound insight and run with it. If you can, use it to make the world a more awesome place, in whatever way seems right.