# Table of Contents


Chapter 1. Introduction: Some Representative Problems 1

Chapter 2. Basics of Algorithm Analysis 29

Chapter 3. Graphs 73

Chapter 4. Divide and Conquer 115

Chapter 5. Greedy Algorithms 157

Chapter 6. Dynamic Programming 251

Chapter 7. Network Flow 337

Chapter 8. NP and Computational Intractability 451

Chapter 9. PSPACE: A Class of Problems beyond NP 531

Chapter 10. Extending the Limits of Tractability 553

Chapter 11. Approximation Algorithms 599

Chapter 12. Randomized Algorithms 661

Chapter 13. Local Search 749

Epilogue: Algorithms That Run Forever 795

References 805

Index 815