

CONTENTS

PREFACE	ix
1 CONNECTIONS	1
1.1 Links	2
1.2 Internet	9
1.3 IP Addressing	16
1.4 IP Routing	23
1.5 Transport	32
2 COMMUNICATION	45
2.1 Names	46
2.2 Time	57
2.3 Access	63
2.4 Mail	66
2.5 Web	74
3 SECURITY	87
3.1 Legacy	88
3.2 Symmetry	96
3.3 Asymmetry	103
3.4 Hashing	108
3.5 Protocols	115
3.6 Hacking	119
4 ANALYSIS	133
4.1 Collection	135
4.2 Processing	139
4.3 Summarizing	146
4.4 Visualization	155
4.5 Testing	170
5 LEARNING	181
5.1 Features	185
5.2 Evaluation	196
5.3 Validation	200
5.4 Fine-Tuning	205

CONCLUSION	221
BONUS: PATTERNS	223
Matching	224
Quantifiers	230
Anchors	233
Groups	236
APPENDIX	241
I Numerical Bases	241
II Cracking the Shift Cipher	242
III Cracking the Substitution Cipher	244
IV Evaluating Classifiers	246
INDEX	255