

Appendix B

Acknowledgements and Supplementary Readings

Most of the basic ideas and examples in this book date back many years and their original source is almost impossible to trace. I've consulted so many books and worked with so many helpful teachers, students, and course staff over the years that the details have blended into a blur. Nevertheless, certain books have had a particularly strong influence on my presentation. Most of them would make excellent supplementary materials, both for instructors and for students.

It's impossible to even think about discrete mathematics without citing the classic encyclopedic text by Rosen [Rosen 2007]. It helped me understand what topics would be most relevant to a computer science, as opposed to a mathematics, audience. Biggs [Biggs 2002], Matousek and Nešetřil [Matousek and Nešetřil 1998] and West [West 2001] have been invaluable references for discrete mathematics and graph theory.

From Liebeck [Liebeck 2006], Sipser [Sipser 2006], and Biggs [Biggs 2002], I learned how to extract core concepts and present them concisely. From Fendel and Resek [Fendel and Resek 1990], I learned how to explain proof mechanics and talk about the process of constructing proofs. From my numerous students and course staff, both at Iowa and Illinois, I have learned to understand why some of these concepts seem so hard to beginners. My early co-instructors Eric Shaffer and Viraj Kumar helped mould the syllabus

to the needs of our students at Illinois. Sarel Har-Peled and David Forsyth have provided many helpful pointers.

A special individual citation goes to Jeff Erickson for the recursion fairy (though my fairy has a slightly different job than his) and for extended arguments about the proper way to present induction (though we still disagree).

Finally, this book touches briefly on a couple topics which are not widely known. Details of the mathematics underlying aperiodic tilings and their connection to Turing machines can be found in [Grünbaum and Shephard 1986] and [Robinson 1971]. For more information on the Marker Making problem, see the work of Victor Milenkovic and Karen Daniels, starting with [Milenovic et al 1991, Milenovic et al 1992].

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