## 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 Nesetril [Matousek and Nesetril 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 co-instructors Eric Shaffer and Viraj Kumar helped mould the curriculum to

## APPENDIX B. ACKNOWLEDGEMENTS AND SUPPLEMENTARY READINGS250

the needs of our students. Sariel Har-Peled has provided many interesting examples.

Finally, 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).

## Bibliography

- [Biggs 2002] Norman L. Biggs (2002) Discrete Mathematics, second edition, Oxford University Press, Oxford, UK.
- [Fendel and Resek 1990] Daniel Fendel and Diane Resek (1990) Foundations of Higher Mathematics: Exploration and Proof, Addison-Wesley, Reading MA.
- [Liebeck 2006] Martin Liebeck (2006) A Concise Introduction to Pure Mathematics, Chapman Hall/CRC, Boca Raton, FL.
- [Matousek and Nesetril 1998] Jiri Matousek and Jaroslav Nesetril (1998) *Invitation to Discrete Mathematics* Oxford University Press.
- [Rosen 2007] Kenneth H. Rosen (2007) Discrete Mathematics and Its Applications, sixth edition, McGraw Hill, New York, NY.
- [Sipser 2006] Michael Sipser, Introduction to the Theory of Computation, second edition, Thomson, Boston MA.
- [West 2001] Douglas B. West (2001) Introduction to Graph Theory, second edition, Prentice-Hall, Upper Saddle River, NJ.