Acknowledgments

Almost all research is collaborative in nature, and I am no exception to this rule. I am indebted to my Dissertation Committee: Dr. Mary Jane Willshire, Dr. Kathy Kasley, and Dr. Scott van Tonningen, for their invaluable advice and support.

I would like to thank my colleagues at the Cypress Semiconductor Colorado Design Center for their support and encouragement. In particular, thanks to Dr. Iulian Gradinariu, Gary Moscaluk and John Tiede for advice concerning test case methodologies, and to Dr. Bogdan Georgescu and Dr. Stefan-Cristian Rezeanu for general advice and encouragement.

Thanks also to my colleagues at IBM. I am particularly indebted to Keith Ford, Eric Gross, Tom Mnich, Dr. Viorel Onofrei and John Silver for their advice and support.

Thanks to Dr. Tom Augustine, Dr. Dan Maupan and Dr. Konrad Schmidt, fellow students at Colorado Technical University who applied peer group pressure by graduating ahead of me. Thanks to Bill McBride and Dr. Jim Freeze for fruitful conversations concerning the Ruby programming language. Thanks to Yukihiro "Matz" Matsumoto for creating Ruby and making programming fun again. Thanks to David Heinemeier Hansson for creating Ruby on Rails. Thanks to Gary Riley for his design, development and support of the CLIPS Expert System.

My parents, Charles and Peg Lehman, instilled in me the value of academic achievement, leading by example.

My wife De'Lynne provided encouragement, support, and patience. I gratefully share my success with her.