Understanding Machine Learning (Shalev-Shwartz and Ben-David)
Course Notes

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July 8, 2021

Introduction

My goal with this document is to read and learn as many chapters of the textbook, "Understanding Machine Learning" by Shai Shalev-Shwartz and Shai Ben-David as possible. This textbook covers a gradute level introduction to machine learning and is the primary text used by Cornell University's CS 4780: Introduction to Machine learning, of which I have taken and will be a teaching assistant for in the Fall semester of 2021, and hopefully future semesters. When I took CS 4780, professor Thorsten Joachims provided multiple chapters of this textbook as auxilliary course material to his students, indicating the importance of the concepts in this book to the study of machine learning. In the fall, Professor Kilian Weinberger will be teaching CS 4780, but he will likely still follow closely to what is taught in this book. Seeing that the textbook is meant for a graduate level introduction to the subject, Cornell's undergraduate class did not cover all aspects of this textbook. However, I will do my best to explore even the more complex topics on my own. My objectives are to be a more knowledgable person in the field, and to be the teaching assistant I wish I had while taking the course for the first time.

Table of Contents

Part 3: Additional Learning Models

Part 4: Advanced Theory

Chapter 2: A Gentle Start