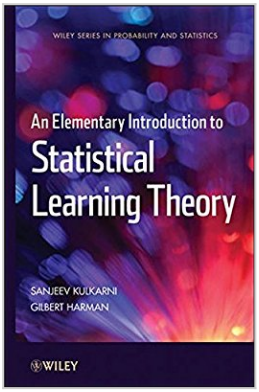

An Elementary Introduction to Statistical Learning Theory

By Sanjeev Kulkarni, Gilbert Harman

An Elementary Introduction to Statistical Learning Theory By Sanjeev Kulkarni, Gilbert Harman

A thought-provoking look at statistical learning theory and its role in understanding human learning and inductive reasoning

A joint endeavor from leading researchers in the fields of philosophy and electrical engineering, *An Elementary Introduction to Statistical Learning Theory* is a comprehensive and accessible primer on the rapidly evolving fields of statistical pattern recognition and statistical learning theory. Explaining these areas at a level and in a way that is not often found in other books on the topic, the authors present the basic theory behind contemporary machine learning and uniquely utilize its foundations as a framework for philosophical thinking about inductive inference.

Promoting the fundamental goal of statistical learning, knowing what is achievable and what is not, this book demonstrates the value of a systematic methodology when used along with the needed techniques for evaluating the performance of a learning system. First, an introduction to machine learning is presented that includes brief discussions of applications such as image recognition, speech recognition, medical diagnostics, and statistical arbitrage. To enhance accessibility, two chapters on relevant aspects of probability theory are provided. Subsequent chapters feature coverage of topics such as the pattern recognition problem, optimal Bayes decision rule, the nearest neighbor rule, kernel rules, neural networks, support vector machines, and boosting.

Appendices throughout the book explore the relationship between the discussed material and related topics from mathematics, philosophy, psychology, and statistics, drawing insightful connections between problems in these areas and statistical learning theory. All chapters conclude with a summary section, a set of practice questions, and a reference sections that supplies historical notes and additional resources for further study.

An Elementary Introduction to Statistical Learning Theory is an excellent book for courses on statistical learning theory, pattern recognition, and machine learning at the upper-undergraduate and graduate levels. It also serves as an

introductory reference for researchers and practitioners in the fields of engineering, computer science, philosophy, and cognitive science that would like to further their knowledge of the topic.

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An Elementary Introduction to Statistical Learning Theory By Sanjeev Kulkarni, Gilbert Harman Bibliography

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Editorial Review

Review

“The main focus of the book is on the ideas behind basic principles of learning theory and I can strongly recommend the book to anyone who wants to comprehend these ideas.” (*Mathematical Reviews*, 1 January 2013)

“It also serves as an introductory reference for researchers and practitioners in the fields of engineering, computer science, philosophy, and cognitive science that would like to further their knowledge of the topic.” (*Zentralblatt MATH*, 2012)

From the Back Cover

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This An Elementary Introduction to Statistical Learning Theory book is not ordinary book, you have after that it the world is in your hands. The benefit you obtain by reading this book will be information inside this e-book incredible fresh, you will get details which is getting deeper a person read a lot of information you will get. That An Elementary Introduction to Statistical Learning Theory without we realize teach the one who reading through it become critical in pondering and analyzing. Don't be worry An Elementary Introduction to Statistical Learning Theory can bring whenever you are and not make your bag space or bookshelves' turn into full because you can have it inside your lovely laptop even cell phone. This An Elementary Introduction to Statistical Learning Theory having good arrangement in word in addition to layout, so you will not really feel uninterested in reading.

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