

Preface

The intersection of machine learning and practical applications has reshaped the landscape of technology, ushering in an era where intelligent systems are not only conceivable but integral to solving complex problems. This book discusses about the realm of Machine Learning Algorithms, utilizing the powerful capabilities of the Scikit-learn and TensorFlow environments. Machine learning algorithms are at the forefront of innovation, driving advancements in diverse fields such as healthcare, finance, and information technology. This book explains the potential of these algorithms, offering a comprehensive exploration of their principles, applications, and implementation. Scikit-learn, a versatile and user-friendly machine learning library, provides an accessible entry point for enthusiasts and professionals alike. With a rich array of tools for data preprocessing, model selection, and evaluation, Scikit-learn is a cornerstone in the journey toward mastering machine learning techniques. Complementing this, we discuss about the sophisticated capabilities of TensorFlow, an open-source machine learning framework developed by the Google Brain team. TensorFlow's flexibility and scalability make it an indispensable tool for building and deploying machine learning models, particularly in scenarios demanding deep neural networks and complex data structures. Further few works on Industry 6.0, Dew computing, etc., have been included for in this book for future readers/ researchers.

We assure that our book will be more helpful to beginners and practitioners through the intricacies of machine learning, starting with fundamental concepts and gradually progressing to advanced algorithms. Hands-on examples and practical implementations (of various sectors like education, healthcare, etc.) using Scikit-learn and TensorFlow are woven throughout, ensuring a pragmatic understanding of the material.

Hence, whether we are a student aspiring to enter the realm of machine learning, or a researcher pushing the boundaries of artificial intelligence/ blockchain Technology, or a academicians/professional who is seeking to enhance our skill set, this book aims to be a reliable companion on our journey to all.

Thanks

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