Preface

Computer security pertains to the usage of technology and policies to assure confidentiality, integrity and availability by undergoing the activities of prevention, detection and recovery. For the past many years, I have been researching and teaching cyber security and over these years I have noticed the increasing trend of machine learning based solutions. Most of the solutions revolve around machine learning and data mining techniques. On unable to find any appropriate compilation of these modern techniques, I decided to come up with this book titled “Machine Learning for Computer and Cyber Security: Principles, Algorithms, and Practices”.The cyberspace continues to face challenging threats and vulnerabilities, hence exposing us to different cyber attacks of varied severity levels and machine learning is an ideal solution forcritical cyber security attacks. I believe learning and understanding any technical matter demands studying it multiple times in different manner which gives you an all new perspective of the problem. Thus, for ensuring an acceptable and satisfactory level of security, it is required that the researchers clearly understand the new technologies and their underneath working. The intended target audience for this book is the set of global researchers who want to explore different machine learning techniques and tools. This book illuminates many underlying aspects of the domain of cyber security. The major contents of this book stem from academic research and studies conducted in collaboration with fellow academicians. I express my heartfelt gratitude and acknowledgement to all of those who have helped out in different ways to make this book a success and I owe many thanks to CRC Press Taylor & Francis Group for this golden opportunity.