

1. Record Nr.	UNINA9910300757203321
Autore	Hosmer Chet
Titolo	Defending IoT Infrastructures with the Raspberry Pi : Monitoring and Detecting Nefarious Behavior in Real Time // by Chet Hosmer
Pubbl/distr/stampa	Berkeley, CA : , : Apress : , : Imprint : Apress, , 2018
ISBN	9781484237007 1484237005
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XV, 178 p. 68 illus.)
Disciplina	005.8
Soggetti	Data protection Python (Computer program language) Computer input-output equipment Security Python Hardware and Maker
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Chapter 1: IoT Vulnerabilities -- Chapter 2: Classifying and Modeling IoT Behavior -- Chapter 3: Raspberry Pi Configuration and PackerRecorder.py Enhancements -- Chapter 4: Raspberry Pi as a Sensor -- Chapter 5: Operating the Raspberry Pi Sensor -- Chapter 6: Adding Finishing Touches -- Chapter 7: Future Considerations -- Appendix: Obtaining the Python Source Code -- Glossary -- .
Sommario/riassunto	Apply a methodology and practical solutions for monitoring the behavior of the Internet of Things (IoT), industrial control systems (ICS), and other critical network devices with the inexpensive Raspberry Pi. With this book, you will master passive monitoring and detection of aberrant behavior, and learn how to generate early indications and warning of attacks targeting IoT, ICS, and other critical network resources. Defending IoT Infrastructures with the Raspberry Pi provides techniques and scripts for the discovery of dangerous data leakage events emanating from IoT devices. Using Raspbian Linux and specialized Python scripts, the book walks through the steps necessary to monitor, detect, and respond to attacks targeting IoT devices. There

are several books that cover IoT, IoT security, Raspberry Pi, and Python separately, but this book is the first of its kind to put them all together. It takes a practical approach, providing an entry point and level playing field for a wide range of individuals, small companies, researchers, academics, students, and hobbyists to participate. What You'll Learn:

- Create a secure, operational Raspberry Pi IoT sensor
- Configure and train the sensor using "normal" IoT behavior
- Establish analytics for detecting aberrant activities
- Generate real-time alerts to preempt attacks
- Identify and report data-leakage events originating from IoT devices
- Develop custom Python applications for cybersecurity.
