1. Record Nr. UNINA9910983305303321 Autore Liu Zhen (Leo) Titolo Artificial Intelligence for Engineers : Basics and Implementations / / by Zhen "Leo" Liu Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 9783031759536 3031759532 Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (719 pages) Disciplina 621.3815 Electronic circuit design Soggetti Computational intelligence Machine learning Electronics Design and Verification Computational Intelligence Machine Learning Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Preparation Knowledge: Basics of AI -- Tools for Artificial Intelligence -- Linear Models -- Decision Trees -- Support Vector Machine --Bayesian Algorithms -- Artificial Neural Network -- Deep Learning --Ensemble Learning -- Clustering -- Dimension Reduction -- Anomaly Detection -- Association Rule Learning -- Basics of and Value-Based Reinforcement Learning -- Policy-Based Reinforcement Learning. Sommario/riassunto This textbook presents basic knowledge and essential toolsets needed for people who want to step into artificial intelligence (AI). The book is especially suitable for those college students, graduate students, instructors, and IT hobbyists who have an engineering mindset. That is, it serves the idea of getting the job done quickly and neatly with an adequate understanding of why and how. It is designed to allow one to obtain a big picture for both AI and essential AI topics within the shortest amount of time. Designed for a typical undergraduate, graduate, or dual-listed course with a semester-based calendar; Puts

theory in context, so readers gain knowledge about the most essential concepts and algorithms; Covers essential terms, algorithms, and

useful tools for learning and performing contemporary AI. Extra information is available at AI-engineer.org.