Record Nr. UNINA9911021974703321 Autore Koubaa Anis Titolo Generative AI and Large Language Models: Opportunities, Challenges, and Applications: Volume 1 / / edited by Anis Koubaa, Adel Ammar, Lahouari Ghouti, Wadii Boulila, Bilel Benjdira Cham:,: Springer Nature Switzerland:,: Imprint: Springer., 2025 Pubbl/distr/stampa **ISBN** 3-031-90573-3 Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (382 pages) Collana Studies in Computational Intelligence, , 1860-9503;; 1214 Altri autori (Persone) AmmarAdel GhoutiLahouari BoulilaWadii BenjdiraBilel Disciplina 006.3 Soggetti Computational intelligence Engineering - Data processing Artificial intelligence Computational Intelligence **Data Engineering** Artificial Intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Survey of Al Driven Advancements in Diagnosis and Clinical Decisions for Healthcare -- ArabianGPT An Arabic Language Adaptation of GPT 2 -- Architectural Deep Dive into Large Language Models -- Architectural Deep Dive into Large Language Models -- Dual Stage Global and Local Feature Framework for Image Dehazing.-Diffusion Models in a Nutshell A Tutorial -- Enhancing Semantic Similarity Understanding in Arabic NLP with Nested Embedding Learning. This book provides a comprehensive exploration of the transformative Sommario/riassunto impact of AI technologies across diverse fields. From revolutionizing healthcare diagnostics and advancing natural language processing for low-resource languages to enhancing software development and

> promoting environmental sustainability, this book explores the cuttingedge advancements and practical applications of generative AI and

large language models (LLMs). With a focus on both opportunities and challenges, the book examines the architectural challenges of transformer-based models, the ethical implications of AI, and the importance of language-specific adaptations, particularly for low-resource languages like Arabic. It also highlights the role of AI in code development, multimodal applications, and its integration with intellectual property frameworks. This book is an essential resource for researchers, practitioners, and policymakers seeking to understand and harness the potential of AI to drive innovation and global progress.