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Titolo Fundamentals of Clinical Data Science [[electronic resource] /] / edited

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Descrizione fisica 1 online resource (VIII, 219 p. 45 illus., 35 illus. in color.)

Disciplina 502.85

Soggetti Health informatics

Bioinformatics
Data Science

Medical Informatics

Precision Medicine - methods

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di contenuto Data sources -- Data at scale -- Standards in healthcare data -- Using

FAIR data / data stewardship -- Privacy / deidentification -- Preparing your data -- Creating a predictive model -- Diving deeper into models -- Validation and Evaluation of reported models -- Clinical decision support systems -- Mobile app development -- Operational excellence

-- Value Based Healthcare (Regulatory concerns).

Sommario/riassunto

This open access book comprehensively covers the fundamentals of

clinical data science, focusing on data collection, modelling and clinical applications. Topics covered in the first section on data collection include: data sources, data at scale (big data), data stewardship (FAIR data) and related privacy concerns. Aspects of predictive modelling using techniques such as classification, regression or clustering, and prediction model validation will be covered in the second section. The third section covers aspects of (mobile) clinical decision support systems, operational excellence and value-based healthcare. Fundamentals of Clinical Data Science is an essential resource for healthcare professionals and IT consultants intending to develop and

refine their skills in personalized medicine, using solutions based on large datasets from electronic health records or telemonitoring programmes. The book's promise is "no math, no code" and will explain the topics in a style that is optimized for a healthcare audience.