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Sommario/riassunto

"This book models human memory from a cognitive standpoint by utilizing brain activations acquired from the cortex by electroencephalographic (EEG) and functional near-infrared-spectroscopic (f-NIRs) means. It begins with an overview of the early models of memory. The authors then propose a simplistic model of Working Memory (WM) built with fuzzy Hebbian learning. A second perspective of memory models is concerned with Short-Term Memory (STM)-modeling in the context of 2-dimensional object-shape reconstruction from visually examined memorized instances. A third model assesses the subjective motor learning skill in driving from erroneous motor actions. Other models introduce a novel strategy of designing a two-layered deep Long Short-Term Memory (LSTM) classifier network and also deal with cognitive load assessment in motor learning tasks associated with driving. The book ends with concluding remarks based on principles and experimental results acquired in previous chapters"--