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Nota di contenuto Why Explainable AI? Why Fuzzy Explainable AI? What Is Fuzzy? --

Defuzzification -- Which Fuzzy Techniques? -- So How Can We Design Explainable Fuzzy AI: Ideas -- How to Make Machine Learning Itself

More Explainable -- Final Self-Test.

Sommario/riassunto Modern AI techniques — especially deep learning — provide, in many

cases, very good recommendations: where a self-driving car should go, whether to give a company a loan, etc. The problem is that not all these recommendations are good -- and since deep learning provides no explanations, we cannot tell which recommendations are good. It is therefore desirable to provide natural-language explanation of the numerical AI recommendations. The need to connect natural language rules and numerical decisions is known since 1960s, when the need emerged to incorporate expert knowledge -- described by imprecise words like "small" -- into control and decision making. For this incorporation, a special "fuzzy" technique was invented, that led to many successful applications. This book described how this technique

can help to make AI more explainable. The book can be recommended for students, researchers, and practitioners interested in explainable AI.