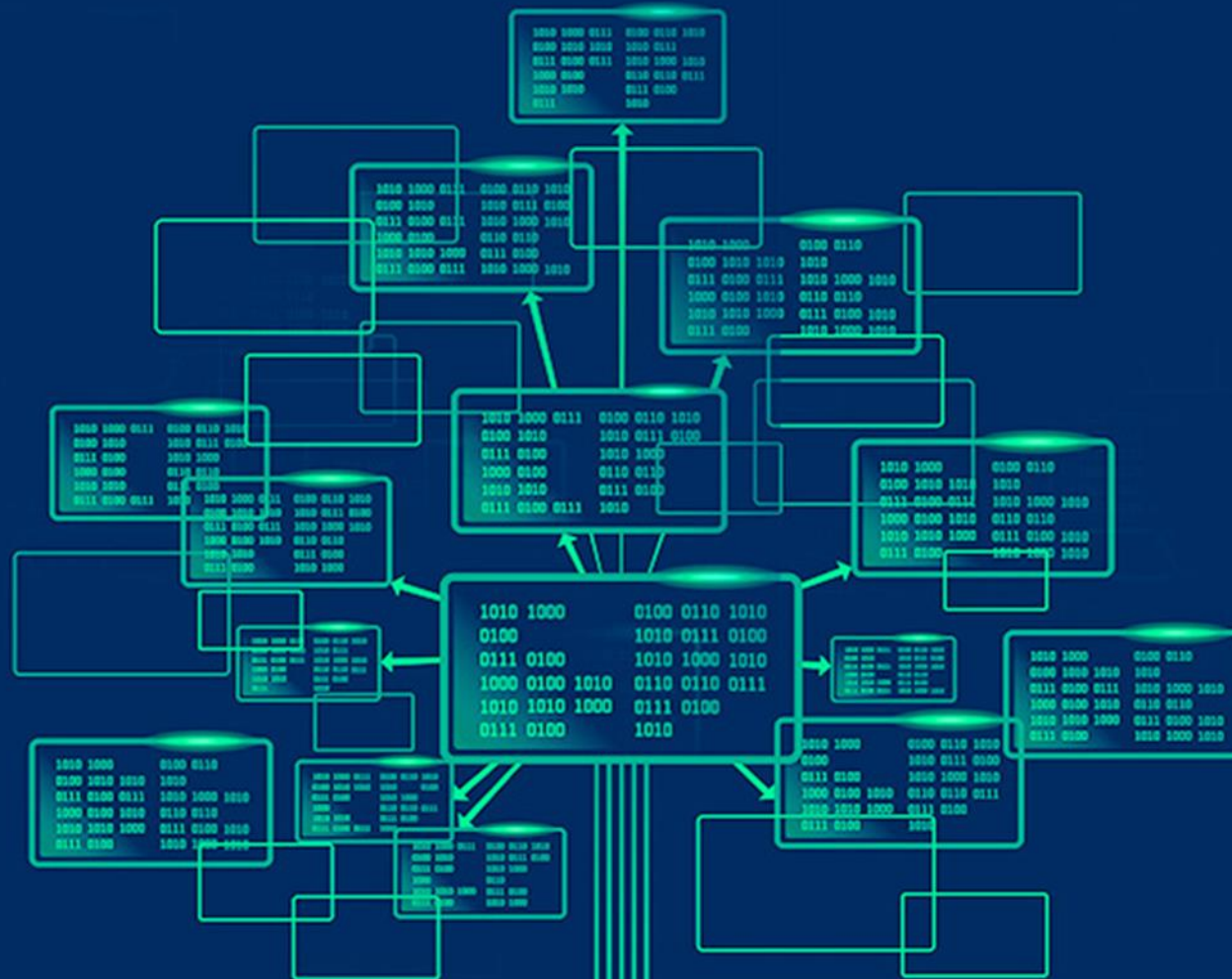
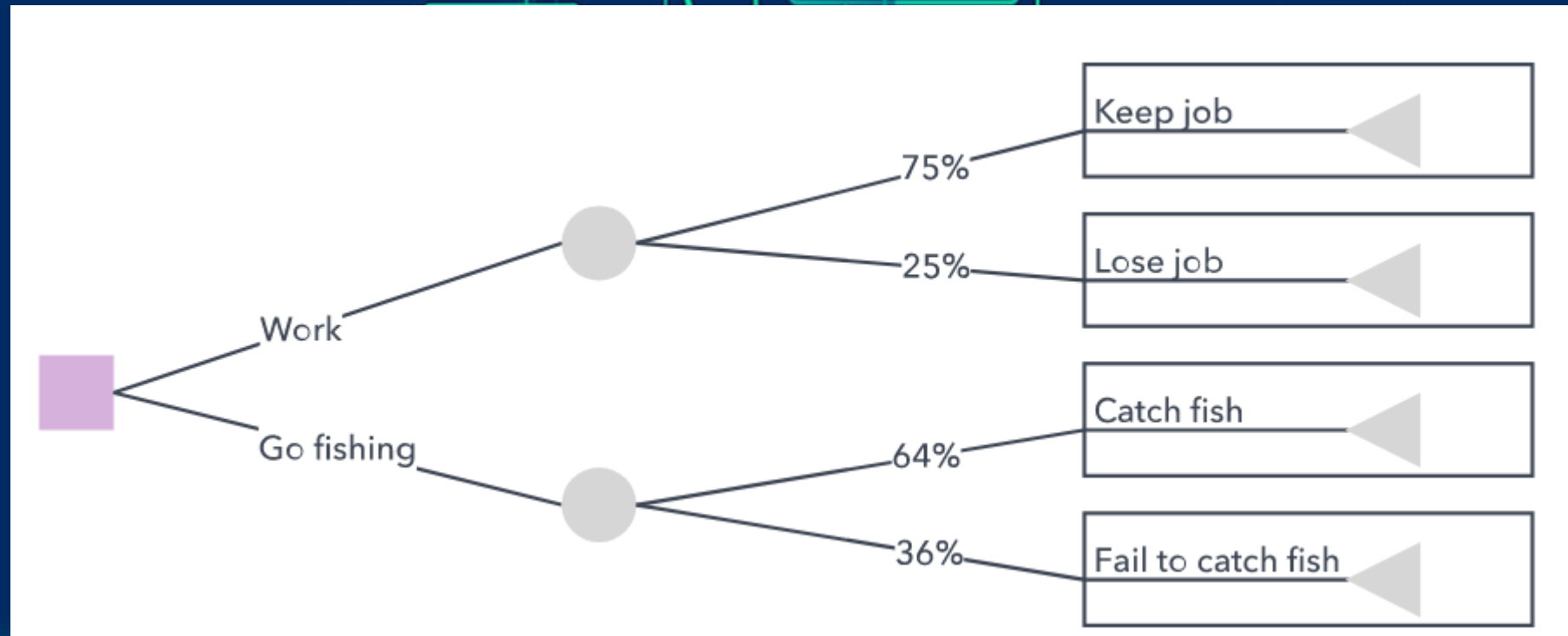


DECISION TREES IN MACHINE LEARNING








Soboleva E.D.
IU5-21M

DECISION TREE EXAMPLE

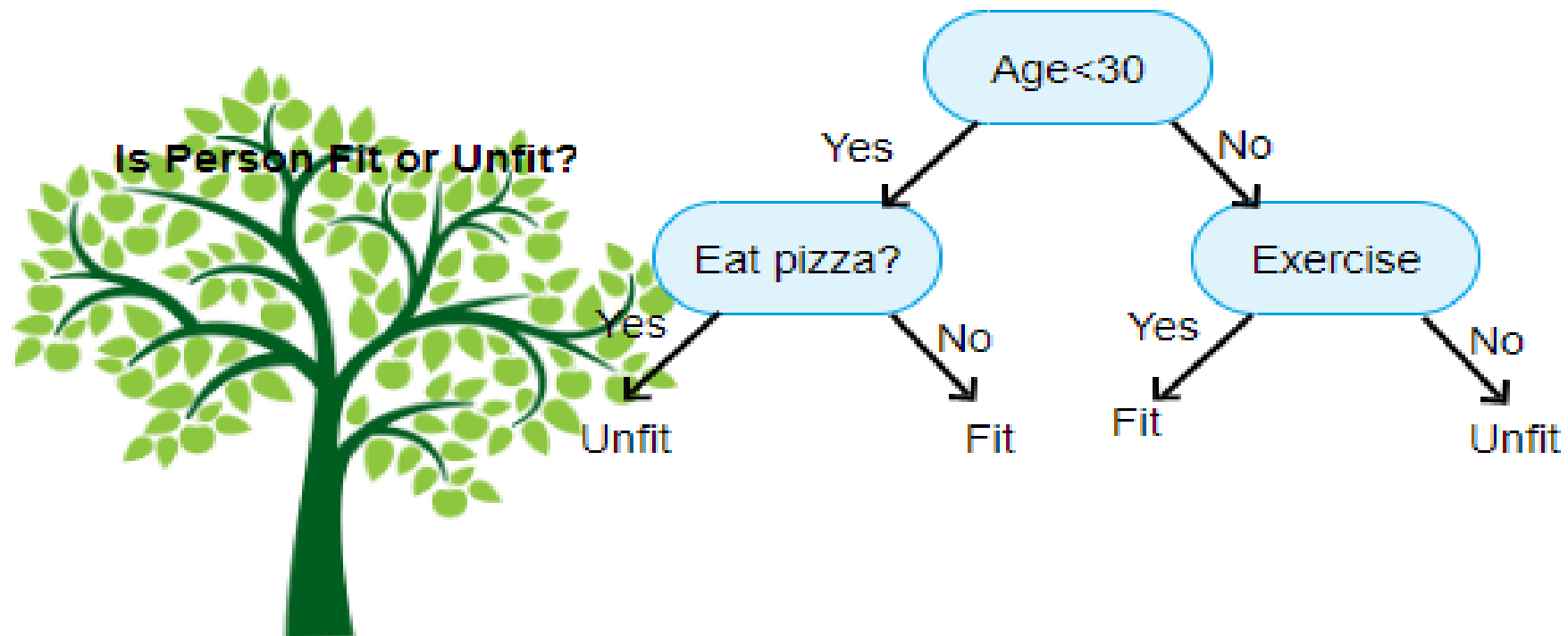


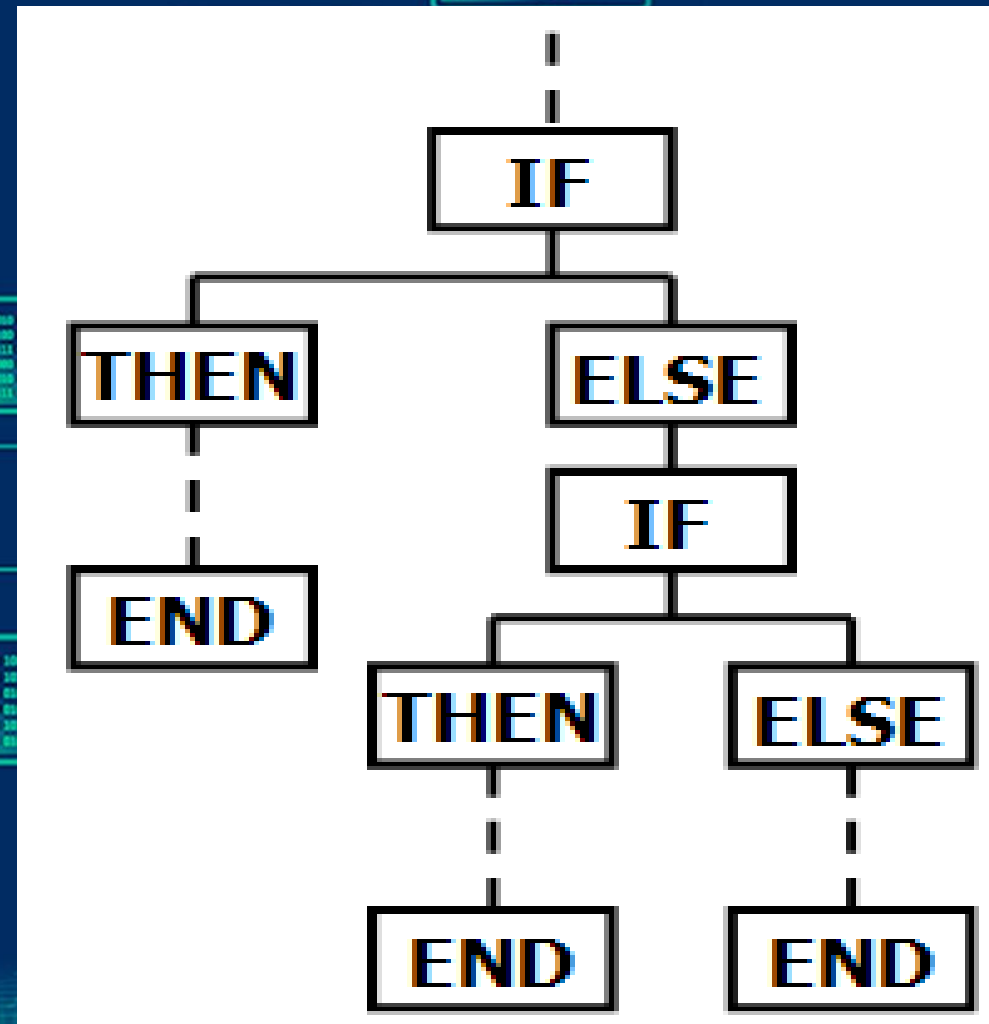
DECISION TREE SYMBOLS



Shape	Name	Meaning
	Decision node	Indicates a decision to be made
	Chance node	Shows multiple uncertain outcomes
	Alternative branches	Each branch indicates a possible outcome or action
	Rejected alternative	Shows a choice that was not selected
	Endpoint node	Indicates a final outcome

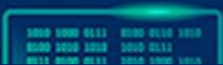
CLASSIFICATION





Advantages

- The cost decreases with each additional data point
- Works for categorical/numerical data
- Can model problems with multiple outputs
- White box model
- Reliability can be tested and quantified
- Tends to be accurate



Disadvantages

- Information gain can be biased
- Calculations can become complex
- Conjunctions between nodes are limited to AND



THANK YOU FOR
YOUR ATTENTION