

Нечеткие отношения

Нечеткие отношения

$$M = \left\{ \text{👾}, \text{👾} \right\}$$

$$C = \left\{ \text{👤}, \text{👤}, \text{👤}, \text{👤} \right\}$$

$$\rho \tilde{C} \times M$$

Нечеткие отношения

$$M = \left\{ \text{[Mecha Icon]}, \text{[Dragon Icon]} \right\}$$

$$C = \left\{ \text{[Samurai Icon]}, \text{[Golem Icon]}, \text{[Robot Icon]}, \text{[Dragon Icon]} \right\}$$

$$\rho \tilde{C} \times M$$

ρ		
	0.8	0.8
	0.8	0.2
	0.2	0.8
	0.2	0.2

Нечеткие отношения

$$\mathbb{M} = \left\{ \text{M1}, \text{M2} \right\}$$

$$\mathbb{C} = \left\{ \text{C1}, \text{C2}, \text{C3}, \text{C4} \right\}$$

$$\rho \subseteq \mathbb{C} \times \mathbb{M}$$

ρ	M1	M2
C1	0.8	0.8
C3	0.8	0.2
C2	0.2	0.8
C4	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in \mathbb{C}} [\mu_C(c) \mu_{\rho}(c, m)]$$

Нечеткие отношения

$$M = \left\{ \text{[Mecha Icon]}, \text{[Mecha Icon]} \right\}$$

$$C = \left\{ \text{[Character Icon]}, \text{[Character Icon]}, \text{[Character Icon]}, \text{[Character Icon]} \right\}$$

$$\rho \subseteq C \times M$$

ρ		
	0.8	0.8
	0.8	0.2
	0.2	0.8
	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\rho \left(\frac{1}{\text{[Character Icon]}} \right) = \left(\frac{0.8}{\text{[Mecha Icon]}} + \frac{0.2}{\text{[Mecha Icon]}} \right)$$

Нечеткие отношения

$$M = \left\{ \text{👾}, \text{👾} \right\}$$

$$C = \left\{ \text{👤}, \text{👤}, \text{👾}, \text{👾} \right\}$$

$$\rho \tilde{C} \times M$$

ρ	👾	👾
👤	0.8	0.8
👾	0.8	0.2
👤	0.2	0.8
👾	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\rho \left(\frac{1}{\text{👾}} \right) = \left(\frac{0.8}{\text{👾}} + \frac{0.2}{\text{👾}} \right)$$

$$\rho \left(\frac{1}{\text{👤}} \right) = \left(\frac{0.8}{\text{👾}} + \frac{0.8}{\text{👾}} \right)$$

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$$M = \left\{ \text{👾}, \text{👾} \right\}$$

$$C = \left\{ \text{👤}, \text{👤}, \text{👾}, \text{👾} \right\}$$

$$\rho \tilde{C} \times M$$

ρ	👾	👾
👤	0.8	0.8
👾	0.8	0.2
👤	0.2	0.8
👾	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\rho \left(\frac{1}{\text{👾}} \right) = \left(\frac{0.8}{\text{👾}} + \frac{0.2}{\text{👾}} \right)$$

$$\rho \left(\frac{1}{\text{👤}} \right) = \left(\frac{0.8}{\text{👾}} + \frac{0.8}{\text{👾}} \right)$$

$$\rho \left(\frac{1}{\text{👾}} \right) = \left(\frac{0.2}{\text{👾}} + \frac{0.2}{\text{👾}} \right)$$

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$$M = \left\{ \text{👾}, \text{👾} \right\}$$

$$C = \left\{ \text{👤}, \text{👤}, \text{👤}, \text{👤} \right\}$$

$$\rho \tilde{C} \times M$$

ρ	👾	👾
👤	0.8	0.8
👤	0.8	0.2
👤	0.2	0.8
👤	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\rho \left(\frac{0.7}{\text{👤}} + \frac{0.3}{\text{👤}} \right) =$$

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$$M = \left\{ \text{👾}, \text{👾} \right\}$$

$$C = \left\{ \text{👤}, \text{👤}, \text{👤}, \text{👤} \right\}$$

$$\rho \tilde{C} \times M$$

ρ	👾	👾
👤	0.8	0.8
👤	0.8	0.2
👤	0.2	0.8
👤	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\rho \left(\frac{0.7}{\text{👤}} + \frac{0.3}{\text{👤}} \right) = \left(\frac{\max(0.7 \cdot 0.2, 0.3 \cdot 0.2)}{\text{👾}}, \frac{\max(0.7 \cdot 0.2, 0.3 \cdot 0.8)}{\text{👾}} \right)$$

Нечеткие отношения

$$M = \left\{ \text{🏆}, \text{🏆} \right\}$$

$$C = \left\{ \text{👤}, \text{👤}, \text{👤}, \text{👤} \right\}$$

$$\rho \tilde{C} \times M$$

ρ	🏆	🏆
👤	0.8	0.8
👤	0.8	0.2
👤	0.2	0.8
👤	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\rho \left(\frac{0.7}{\text{👤}} + \frac{0.3}{\text{👤}} \right) = \left(\frac{\max(0.7 \cdot 0.2, 0.3 \cdot 0.2)}{\text{🏆}} \right) \left(\frac{\max(0.7 \cdot 0.2, 0.3 \cdot 0.8)}{\text{🏆}} \right) = \left(\frac{0.16}{\text{🏆}} + \frac{0.24}{\text{🏆}} \right)$$

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$$M = \left\{ \text{🏆}, \text{🏆} \right\}$$

$$C = \left\{ \text{👤}, \text{👤}, \text{👤}, \text{👤} \right\}$$

$$\rho \tilde{C} \times M$$

ρ	🏆	🏆
👤	0.8	0.8
👤	0.8	0.2
👤	0.2	0.8
👤	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\begin{aligned} \rho \left(\frac{0.8}{\text{👤}} + \frac{0.2}{\text{👤}} \right) &= \\ &\left(\frac{\max(0.8 \cdot 0.2, 0.2 \cdot 0.2)}{\text{🏆}} \right. \\ &\quad \left. \frac{\max(0.8 \cdot 0.2, 0.2 \cdot 0.8)}{\text{🏆}} \right) \\ &= \left(\frac{0.16}{\text{🏆}} + \frac{0.16}{\text{🏆}} \right) \end{aligned}$$

Нечеткие отношения

$$M = \left\{ \text{👹}, \text{👾} \right\}$$

$$C = \left\{ \text{👤}, \text{👴}, \text{👾}, \text{👼} \right\}$$

$$\rho \tilde{C} \times M$$

ρ	👾	👹
👤	0.8	0.8
👾	0.8	0.2
👴	0.2	0.8
👼	0.2	0.2

$$\mu_{\rho(C)}(m) = \sum_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\rho \left(\frac{0.8}{\text{👼}} + \frac{0.2}{\text{👴}} \right) = \left(\frac{0.8 \cdot 0.2 + 0.2 \cdot 0.2 - 0.8 \cdot 0.2 \cdot 0.2 \cdot 0.2}{\text{👾}} \right)$$

$$\left(\frac{0.8 \cdot 0.2 + 0.2 \cdot 0.8 - 0.8 \cdot 0.2 \cdot 0.8 \cdot 0.2}{\text{👹}} \right)$$

$$= \left(\frac{0.1936}{\text{👾}} + \frac{0.2944}{\text{👹}} \right)$$

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$$M = \left\{ \text{👹}, \text{👹} \right\}$$

$$C = \left\{ \text{👤}, \text{👤}, \text{👤}, \text{👤} \right\}$$

$$\rho \tilde{C} \times M$$

ρ	👹	👹
👤	0.8	0.8
👤	0.8	0.2
👤	0.2	0.8
👤	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\rho \left(\frac{0.4}{\text{👤}} + \frac{0.5}{\text{👤}} \right) =$$

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$$C = \left\{ \text{👤}, \text{👤}, \text{👤}, \text{👤} \right\}$$

$$\rho \widetilde{C} \times M$$

ρ	👹	👹
👤	0.8	0.8
👤	0.8	0.2
👤	0.2	0.8
👤	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\rho \left(\frac{0.4}{\text{👤}} + \frac{0.5}{\text{👤}} \right) = \left(\frac{\max(0.4 \cdot 0.2, 0.5 \cdot 0.8)}{\text{👹}}, \frac{\max(0.4 \cdot 0.8, 0.5 \cdot 0.2)}{\text{👹}} \right)$$

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$$C = \left\{ \text{👤}, \text{👤}, \text{👾}, \text{👾} \right\}$$

$$\rho \widetilde{C} \times M$$

ρ	👾	👾
👤	0.8	0.8
👾	0.8	0.2
👤	0.2	0.8
👾	0.2	0.2

$$\mu_{\rho(C)}(m) = \max_{c \in C} [\mu_C(c) \mu_{\rho}(c, m)]$$

$$\begin{aligned} \rho \left(\frac{0.4}{\text{👤}} + \frac{0.5}{\text{👾}} \right) &= \left(\frac{\max(0.4 \cdot 0.2, 0.5 \cdot 0.8)}{\text{👾}} \right. \\ &\quad \left. \frac{\max(0.4 \cdot 0.8, 0.5 \cdot 0.2)}{\text{👾}} \right) \\ &= \left(\frac{0.4}{\text{👾}} + \frac{0.32}{\text{👾}} \right) \end{aligned}$$