论文

正文标题

组长[1]，队员 1[2*]，队员 2[3]

1. 计算机科学与技术专业

2. 软件工程专业

3. 人工智能专业

* 通信作者. E-mail: xingming2@xxxx.xxx

摘要　摘要主要包括本文的研究目的、方法、结果和结论, 注意突出创新点. 应避免出现图、表、公式、参考文献引用等. 对应的英文摘要长度在 200 词左右.

关键词　关键词 1, 关键词 2, 关键词 3, 关键词 4, 关键词 5

1　一级标题

正文开始. 直接提到文献 [1~6] 中, 使用平排, 引用他人工作使用小上标 [7~12].

使用英文逗号 ","、句号 "."、冒号 ":"、分号 ";".

定义 1 (**定义名, 可省略**)　这是一个定义.

2　一些常用的格式

2.1　图片

图片如1所示.

2.2　公式

$$X = [x_{11}, x_{12}, \ldots, x_{ij}, \ldots, x_{n-1,n}]^{\mathrm{T}},$$
$$\varepsilon = [e_{11}, e_{12}, \ldots, e_{ij}, \ldots, e_{n-1,n}],$$
$$T = [t_{11}, t_{12}, \ldots, t_{ij}, \ldots, t_{n-1,n}].$$

$$\sum_{j=1}^{n} x_{ij} - \sum_{k=1}^{n} x_{ki} = \begin{cases} 1, & i = 1, \\ 0, & i = 2, \ldots, n-1, \\ -1, & i = n. \end{cases} \tag{1}$$
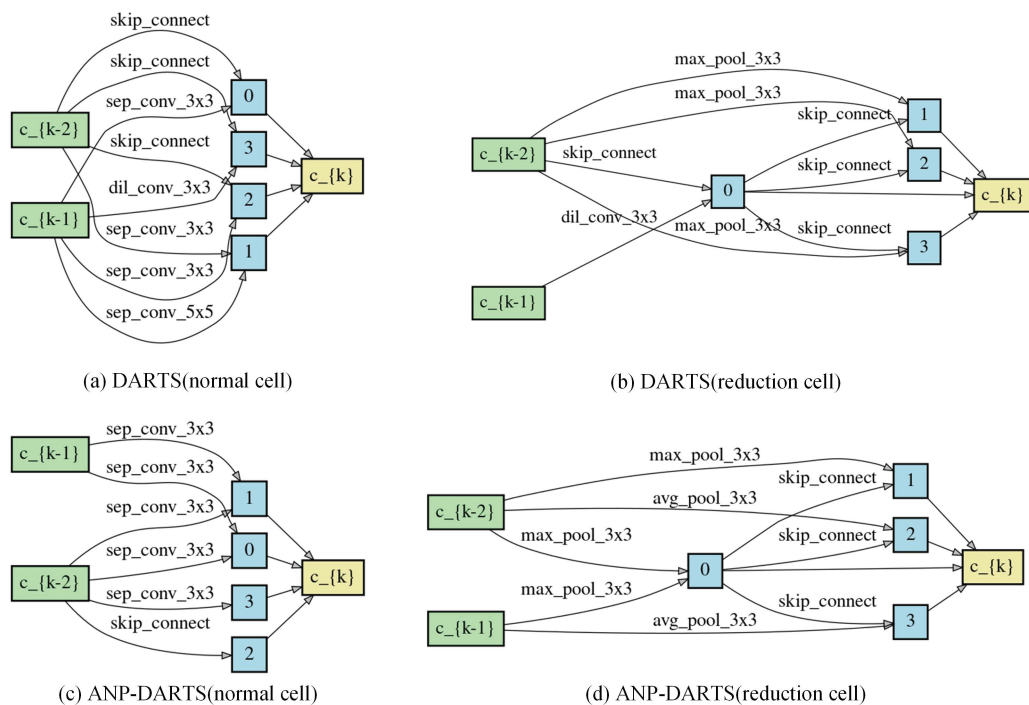
(a) DARTS(normal cell)

(b) DARTS(reduction cell)

(c) ANP-DARTS(normal cell)

(d) ANP-DARTS(reduction cell)

图 1 (网络版彩图) 图题
Figure 1 (Color online) Caption

表 1 表题
Table 1 Caption

Title a	Title b	Title c	Title d
Aaa	Bbb	Ccc	Ddd
Aaa	Bbb	Ccc	Ddd
Aaa	Bbb	Ccc	Ddd

2.3 表格

表格如表1所示.

2.4 算法

算法如算法1所示.

参考文献

1 Turing A M. Computing Machinery and Intelligence. Springer, 2009

2 Kalai A, Vempala S. Efficient algorithms for online decision problems. J Comput Syst Sci, 2005, 71: 291–307

3 Huang K Q, Xing J L, Zhang J G, et al. Intelligent technologies of human-computer gaming. Sci Sin Inform, 2020, 50: 540–550 [黄凯奇, 兴军亮, 张俊格, 等. 人机对抗智能技术. 中国科学: 信息科学, 2020, 50: 540-550]

4 Yang Y, Hao J, Liao B, et al. Qatten: a general framework for cooperative multiagent reinforcement learning. arXiv, 2020. arXiv:1611.01144

算法 1 算法标题

输入: $n \geqslant 0 \vee x \neq 0$;

主迭代: $y = x^n$;

1: $y \Leftarrow 1$;
2: **if** $n < 0$ **then**
3:      $X \Leftarrow 1/x$;
4:      $N \Leftarrow -n$;
5: **else**
6:      $X \Leftarrow x$;
7:      $N \Leftarrow n$;
8: **end if**
9: **while** $N \neq 0$ **do**
10:     **if** N is even **then**
11:         $X \Leftarrow X \times X$;
12:         $N \Leftarrow N/2$;
13:     **else** $\{N$ is odd$\}$
14:         $y \Leftarrow y \times X$;
15:         $N \Leftarrow N - 1$;
16:     **end if**
17: **end while**

输出:

---

5   Smith L, Gasser M. The development of embodied cognition: six lessons from babies. Artif Life, 2005, 11: 13-29

6   Duan J, Yu S, Tan H L, et al. A survey of embodied AI: from simulators to research tasks. IEEE Trans Emerg Topic Comput Intell, 2022, 6: 230-244

7   Rashid T, Samvelyan M, De Witt C S, et al. Monotonic value function factorisation for deep multi-agent reinforcement learning. J Mach Learn Res, 2020, 21: 7234-7284

8   Turing A M. Computing machinery and intelligence. Mind, 1950, 59: 433

9   Foerster J, Farquhar G, Afouras T, et al. Counterfactual multi-agent policy gradients. In: Proceedings of the 32nd AAAI Conference on Artificial Intelligence, 2018. 2974-2982

10 Sunehag P, Lever G, Gruslys A, et al. Value-decomposition networks for cooperative multi-agent learning based on team reward. In: Proceedings of the 17th International Conference on Autonomous Agents and Multiagent Systems, 2018. 2085-2087

11 Freund Y, Schapire R E. Game theory, on-line prediction and boosting. In: Proceedings of the 9th Annual Conference on Computational Learning Theory, 1996. 325-332

12 Devlin J, Chang M, Lee K, et al. Bert: pre-training of deep bidirectional transformers for language understanding. In: Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, NAACL-HLT, 2019. 4171-4186