

作品原创性声明

本人郑重声明：由本团队所呈交的第 18 届“花旗杯”金融创新应用大赛（以下简称“花旗杯”）参赛作品《GAP-基于深度强化学习算法的游戏账号评估平台》是在本人带领（或指导）下，由团队成员独立研究所取得的真实成果。除参赛作品中已注明引用的内容外，参赛作品中不涉及任何其他个人或集体已经发表或撰写的作品成果，不存在抄袭他人作品等侵犯任何第三方享有的知识产权或其他权利的违法行为。

本人和参赛团队成员均已明确悉知，参赛作品如侵犯任何第三人享有的知识产权或其他权利的，本人和团队成员将会承担由此导致的一切后果（包括但不限于取消第 18 届“花旗杯”参赛资格、取消所获得的奖项等）和相应的法律责任。

队长（或指导老师）签名：马超凡

日期：2023年3月25日

作品自我（或指导老师）评价

（参赛作品优缺点，以及后续计划等）

The first strength of this work is the innovative pricing tool for data assets in the domestic game market; currently the main game asset pricing is focused on blockchain games, and based on the current situation that non-blockchain games are still mainstream in the domestic game market, we chose to provide a pricing tool for assets of such games.

The second advantage of this work is that the model is highly targeted to achieve more accurate pricing; considering the strong customisation of different games, we did not adopt a uniform solution to improve universality, but rather improve the targeting for each game.

The third advantage of this work is the use of a deep strategic gradient algorithm, which effectively improves the convergence speed of the neural network and the accuracy of the model.

The disadvantage of this work is that the model relies on existing trading information and requires a large amount of trading data to produce more scientifically sound results, which can lead to lagging model results due to the untimeliness of the data.

However, we have come up with certain solutions to this drawback, hoping to cooperate with major trading platforms and adopt an interface to obtain new data directly; and pay attention to the fluctuations of the capital market, such as major transactions, equity swaps, betting agreements and other business activities, to obtain first-hand information and adjust the model in a timely manner.

The tool has now completed testing and will soon enter the trial run phase on the web side. We plan to use the tool to collect 10,000 primary data in the next six months and use the primary data to make corrections to the model.

In the coming year, we plan to try to cooperate with the game asset trading platform to help them extend the industry chain and obtain more primary data.

In the next two years, based on the cooperation, we will obtain first-hand transaction data of other games (1-2 games, currently selected Tencent's King of Glory) to provide pricing tools for training models of other games.