

Research Interest

Reinforcement Learning

Education

2020.9-	Master	HKUST	Big Data Technology	GPA: 3.75/4.3
2017.9-2020.5	Bachelor	Boston University	Computer Science	Major GPA: 3.72/4

Project

2020.11-2020.12

Double DQN-based AI for Sichuan Mahjong

Description

This work developed a heuristic agent and use it to train a Double Deep Q Network (DDQN) agent. The result shows that our DDQN agent does not give a satisfactory performance. In contrast, the heuristic model works well. Still, enhancement works could still be done on both the DDQN agent and the heuristic agent.

Duty

1. Design the heuristic algorithm and select the suitable parameter.
2. Implement the heuristic agent and the DDQN agent, and then train and evaluate the model.

2020.9-2020.10

Parallelization of Borůvka Algorithm

Description

This works implements the Borůvka algorithm by Python (Multiprocessing) and Spark. The performance of Python and Spark are evaluated by the run-time of finding a minimum spanning tree (MST) in Erdős–Rényi (ER) random graph of different size. The result shows that the run-time decreases as the number of Spark executors increases but converges when there are more than 4 executors.

Duty

1. Implement the Borůvka Algorithm by Python and Spark, then evaluate the performance of parallelization.
2. Develop a multiprocessing ER random graph generator.

2020.4-2020.10

Duplicated Question Pairs Detection

Description

This work uses a Siamese 50-layer LSTM to detect the duplicated question pairs. In the experiment, our model gives a satisfactory performance of 73%-83% F1 score.

Duty

1. Collect and clean 500 000 sentences from Quora/Stack Overflow, then encode the text by Google W2V.
2. Implement Siamese LSTM, then trained and evaluated the model.

Internship

2018.7-2018.9

Huawei Cloud - Block Storage

Software Engineer

1. Developed some APIs with Python, such as Encryption, Monitor, Create/Restore Snapshots etc.;
2. Developed relevant UI on Huawei-EVS's webpages with HTML, Angular JS, and CSS, and fixed 30 BUGs;
3. Preliminarily understood some Openstack components, such as Cinder, Glance, Swift, Horizon, Nova etc.;

2018.6-2018.7

Perfect World - New Zhuxian(诛仙)

Software Engineer

1. Participate in development of task *Mind the Snowballs* in expansion *Pet in Summer*;
2. Developed new skill logic (No.23) with C++ and a new instance dungeon with lua script;