東京大学
THE UNIVERSITY OF TOKYO

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EFFICIENT EXPLORATION in Distributed Reinforcement Learning

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REINFORCEMENT LEARNING (RL)

GHOST – Bad
FRUITS – Very Good
PELLETS - Good

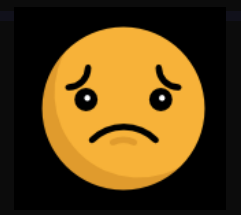
ACTION

LEFT

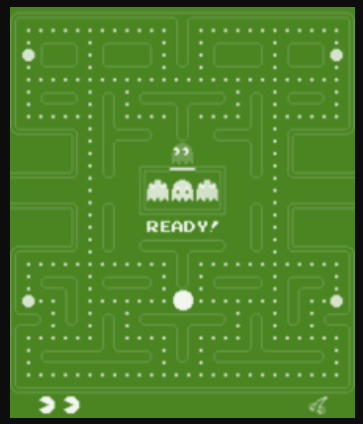
UP

RIGHT

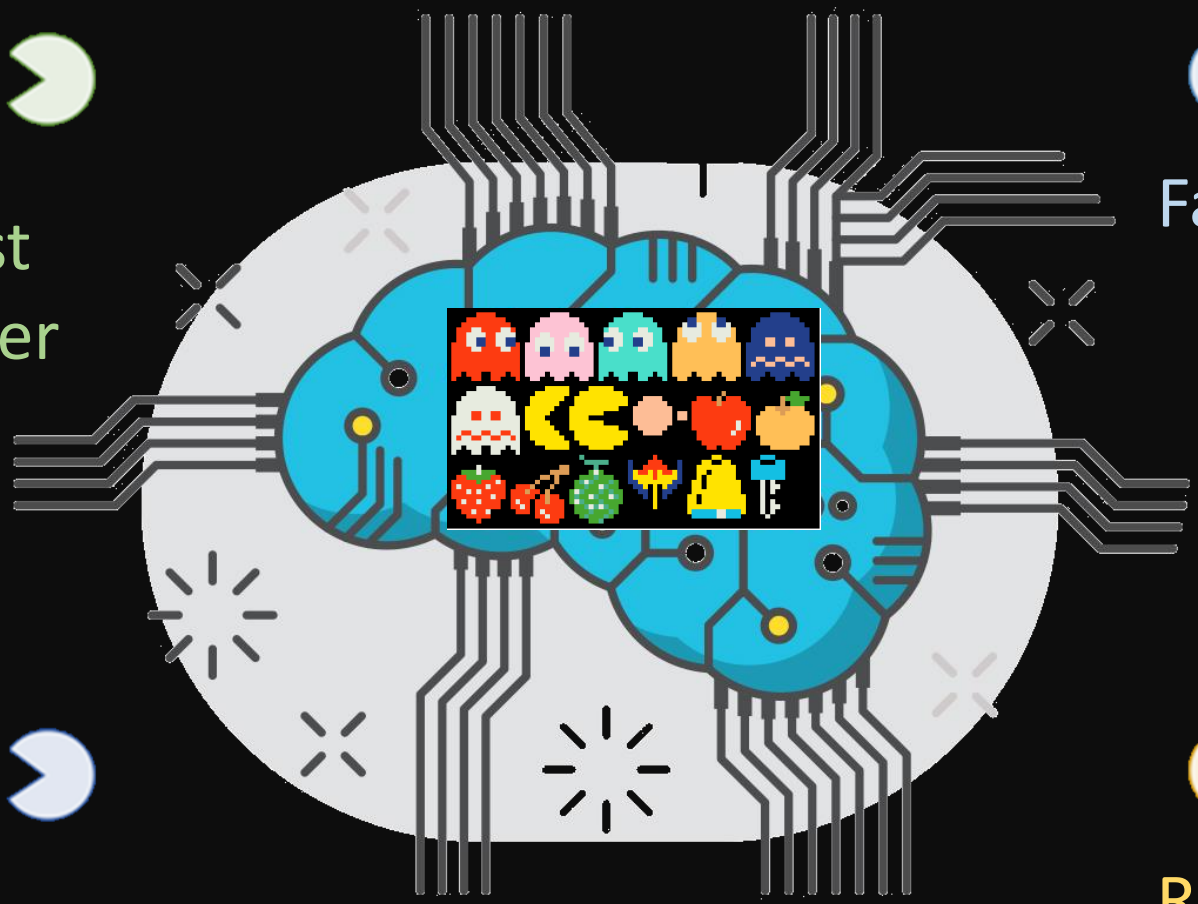
REWARD



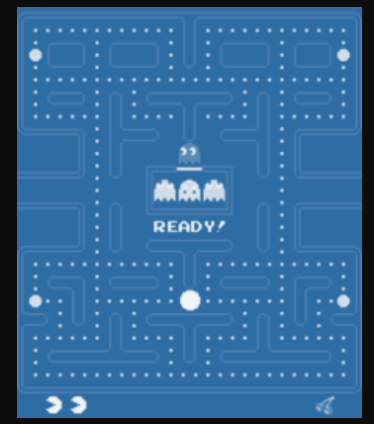
EFFICIENT EXPLORATION IN DISTRIBUTED RL

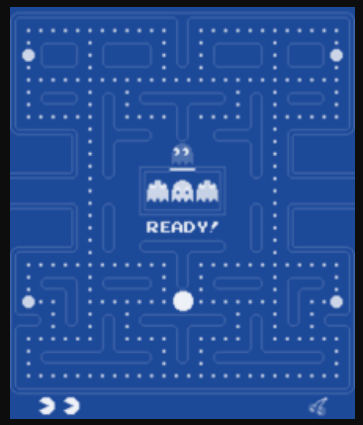


Ghost Chaser



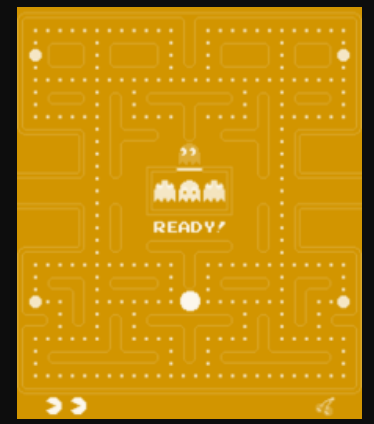
Farmer





Pacifist

Runner



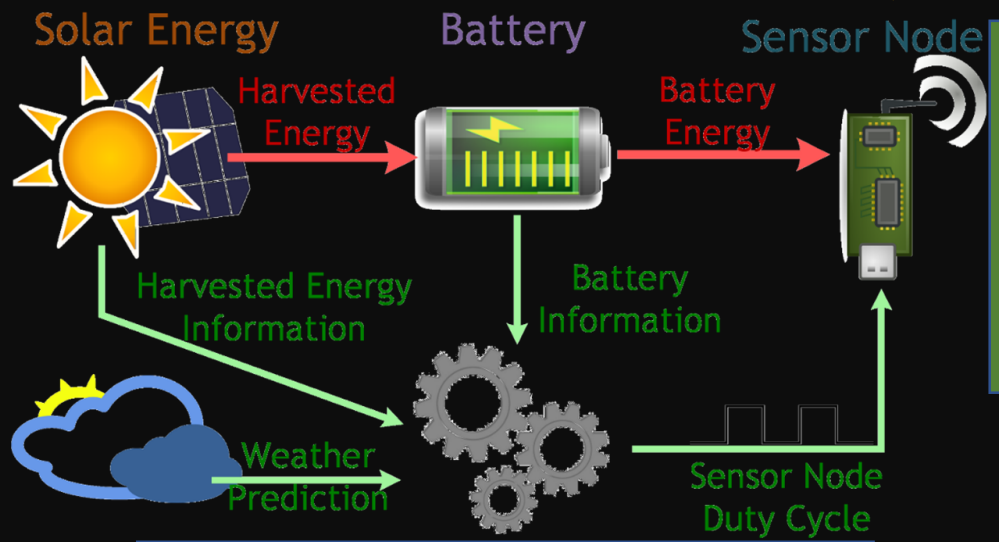
RL FOR POWER MANAGEMENT

INFORMATION

- Harvested Energy
- Residual Battery
- Weather Forecast

DECISION

- Determine optimal duty cycle



ENVIRONMENT

- Reward based on energy neutral performance

Learning Algorithm

Reward Function

DISTRIBUTED RL FOR IoT