One hot encoding (1.0/0.0)

is\_ unknown , is\_ empty , is\_nebula , is\_ asteroid , is\_relic , is\_visible,

Number of enemy units,

sum of enemy energy on this tile,

number of friendly units ,

sum of friendly energy on this tile,

Tile energy (-20 to 20)

Steps

team\_wins (, )

team\_points (, )

unit\_move\_cost,

unit\_sap\_cost,

unit\_sap\_range

env\_params\_ranges = dict(

unit\_move\_cost=list(range(1, 6)),

unit\_sensor\_range=[1, 2, 3, 4],

nebula\_tile\_vision\_reduction=list(range(0, 8)),

nebula\_tile\_energy\_reduction=[0, 1, 2, 3, 5, 25],

unit\_sap\_cost=list(range(30, 51)),

unit\_sap\_range=list(range(3, 8)),

unit\_sap\_dropoff\_factor=[0.25, 0.5, 1],

unit\_energy\_void\_factor=[0.0625, 0.125, 0.25, 0.375],

# map randomizations

nebula\_tile\_drift\_speed=[-0.15, -0.1, -0.05, -0.025, 0.025, 0.05, 0.1, 0.15],

energy\_node\_drift\_speed=[0.01, 0.02, 0.03, 0.04, 0.05],

energy\_node\_drift\_magnitude=list(range(3, 6)),

)

conda create -n "lux-s3" "python==3.11"

conda activate lux-s3

cd "C:\Users\James\OneDrive\Documents\GitHub"

git clone https://github.com/Lux-AI-Challenge/Lux-Design-S3/

pip install -e Lux-Design-S3/src

luxai-s3 --help

luxai-s3 "C:\Users\James\OneDrive\Documents\GitHub\Lux-Design-S3\kits\python\main.py" "C:\Users\James\OneDrive\Documents\GitHub\Lux-Design-S3\kits\python\main.py" --output replay.json

conda activate lux-s3

cd "C:\Users\James\OneDrive\Documents\GitHub\Lux-Design-S3"

luxai-s3 --help

!cd agent && tar -czf submission.tar.gz \*

!mv agent/submission.tar.gz .

pip install -e Lux\_Design\_S3\_Fork/src

# Installation and Setup Instructions

1. Clone the repository and change directory:

git clone https://github.com/your-username/your-repository.git

cd your-repository

2. Create and activate a virtual environment (using Conda):

conda create -n lux-s3 python==3.11

conda activate lux-s3

3. Install the package in editable mode (assuming the source code is in Lux-Design-S3/src):

pip install -e Lux-Design-S3/src

4. Install additional dependencies:

- If you have a requirements.txt file:

pip install -r requirements.txt

- Or, if you provide an environment.yml:

conda env create -f environment.yml

conda activate lux-s3

5. Run your notebooks or scripts (for example, to launch Jupyter Notebook):

jupyter notebook

6. Verify the installation by opening a Python shell or notebook and running:

from luxai\_s3.wrappers import LuxAIS3GymEnv, RecordEpisode