I am the Maintainer of Gym and PettingZoo. Help.

J K Terry

History of Gym (Part 1)

- RL used to be very hard an inaccessible
  - Unmaintained libraries
  - Inconsistent APIs (included different languages)
  - Lacking interoperability, reproducibility and productivity issues
- Elon Musk decided the robot apocalypse was imminent and founded OpenAI
  - They decided democratizing RL would help prevent this
- Gym was created for this reason, largely by Greg Brockman (now CTO of OpenAI)
  - Universal API between environments and learning code
  - Set of reference environments

History of PettingZoo

- Multi-agent RL was hard because all the major code bases were unmaintained and there were inconsistent APIS
  - "Someone should make Gym for multi-agent RL, it'll only take a few months!"
    - It took ~7000 man hours including upstream maintenance
- ~1 year later
  - 3rd most installed library on PyPI
  - 20+ third party environments, more planned
  - Support from every major MARL learning library but one (which is working on it)
- https://www.pettingzoo.ml

History of Gym (Part 2)

- Around 2 years ago OpenAI started progressively not maintaining Gym anymore
  - E.g. the PR for Python 3.9 support took 10 months to merge
- I needed Gym to work for PettingZoo to keep working, and most maintenance to Gym was merging PRs at my request
- Eventually they gave in and just made me the maintainer
  - I am not paid by, employed by, or affiliated with OpenAI
- Gym is the most used RL library on the world and I am now the sole maintainer
  - 30 million installs
  - ~2 years of backlog
  - ~65 open PRs (down to ~15)
  - ~250 issues (down to ~150)
  - No working CI (mostly fixed)
  - No documentation
  - No code style etc. (fixed)
- Help.

Help. (Gym)

- Any Level of Experience
  - gym.wrappers (coordinate with me on the github thread first-
    https://github.com/openai/gym/issues/2283)
- Experienced Contributors
  - Figure out what to do with issues with "needs help" tag (ping me to close, note a fix is needed, etc.)
- Documentation (requires meaningful front end and Jekyll experience)
  - People working on it, availabilities are
    - People to replace people working on it if one flakes
    - People to do PRs to improve mobile support once released
  - jkterry@umd.edu
- pybox2d situation/maintainer
  - jkterry@umd.edu

Help. (PettingZoo)

- 2/3rds complete PettingZoo RLlib tutorial
  - Intermediate RL knowledge and proficient/native English required
  - About 40 hours of work needed
  - Last article I wrote like it was the top article on Towards Data Science, editors choice, viewed 10s of thousands of times, etc. etc.
  - jkterry@umd.edu
- Add PettingZoo API support in notable 3rd party envs (PR to link in PettingZoo's list)
  - eugenevinitsky/sequential_social_dilemma_games (fix bug in PettingZoo paper) (about 2 weekends)
  - LucasAlegre/sumo-rl (traffic signal control) (about a weekend)
- Colosseum
  - Unreleased PettingZoo based "Kaggle for RL" service we've been working on for over a year
  - Need new experienced front end developer starting in ~September
  - Need experienced back end developer(s) starting now
  - Minimum 10 hours a week, long term commitment, goal to release in 6 months
  - jkterry@umd.edu

Questions?